

**THE EFFECTS OF PLANNING ON SECOND LANGUAGE (L2)  
LEARNERS' NARRATIVE ORAL PRODUCTION**

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**DISSERTATION SUBMITTED IN FULFILLMENT OF THE  
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**FACULTY OF LANGUAGES AND LINGUISTICS**

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## **ABSTRACT**

Recently, researches concerning task planning and its effects on second language (L2) learners' speaking performance have demonstrated that planning can generally enhance learners' speaking performance (Abdi, Eslami & Zahedi, 2012; Ahangari & Abdi, 2011; Bagheri & Hamrang, 2013; Crookes, 1989; Ellis, 1987; Mehnert, 1998; Mehrang & Rahimpour, 2010; Ortega, 1995; Ortega 1999; Rouhi & Marefat, 2006; Yuan & Ellis, 2003). However, in terms of pre-task planning and within task planning, there are no conclusive findings on which type of planning can benefit more to L2 learners' speaking performance.

Furthermore, few studies have explored the planning effects of pre-task planning plus within task planning as suggested by Yuan and Ellis (2003). Additionally, previous studies investigated learners' planning process mainly from the perspective of the planning strategies that learners used. Few have studied learners' planning process from the perspective of Levelt's (1989) Model of Speech Production which explains how speaking takes place and where planning occurs during speaking and how planning can influence speech production, with the exception of Yuan and Ellis (2003). Nevertheless, Yuan and Ellis (2003) theoretically analyzed learners' planning process. They did not collect data to analyze how learners approached the task.

The present study attempted to fill the gaps stated above and explored learners' planning process practically. This study utilized a between-subject experimental design. The participants in this study were randomly assigned to 4 groups, including 3 experimental groups and 1 control group. They were required to perform a narrative task under 4 conditions: pre-task planning, within task planning, pre-task planning plus

within task planning and no planning. To investigate the planning effects, the participants' speech was analyzed in terms of accuracy, complexity and fluency. To understand the learners' planning process, information from post-task questionnaire was elicited and analyzed qualitatively based on Levelt's (1989) speech production model.

The results showed that pre-task planning can contribute more to learners' L2 speaking performance than within task planning in general. Moreover, pre-task planning plus within task planning can positively influence learners' speaking performance but there is no significant difference in its planning effects compared with pre-task planning and within task planning. These findings infer that learners' speaking performance could be significantly enhanced when learners are well-equipped with explicit knowledge and are given time to plan under guidance. In addition, the results of the post-task questionnaire demonstrated that learners actually experienced the stages of Levelt's (1989) Model of Speech Production. This finding strengthens Levelt's (1989) theory.

**Key words:** planning effects    speaking    L2    narrative

## ABSTRAK

Kebelakangan ini, penyelidikan berkaitan dengan perancangan tugas dan kesan-kesannya terhadap pertuturan dalam bahasa kedua pelajar menunjukkan bahawa perancangan membantu pertuturan pelajar (Abdi, Eslami & Zahedi, 2012; Ahangari & Abdi, 2011; Bagheri & Hamrang, 2013; Crookes, 1989; Ellis, 1987; Mehnert, 1998; Mehrang & Rahimpour, 2010; Ortega, 1995; Ortega 1999; Rouhi & Marefat, 2006; Yuan & Ellis, 2003). Walau bagaimanapun, kesan-kesan perancangan sebelum dan semasa tugas terhadap pertuturan pelajar adalah tidak jelas.

Beberapa kajian telah meneroka kesan-kesan sebelum dan semasa perancangan tugas, sepertimana yang dicadangkan oleh Yuan dan Ellis (2003). Akan tetapi, kajian-kajian lepas yang mengkaji perancangan tugas pelajar-pelajar sebahagian besarnya mengkaji dari perspektif strategi-strategi perancangan yang digunakan oleh pelajar-pelajar. Terdapat kekurangan kajian yang mengkaji proses perancangan pelajar dari perspektif “Model of Speech Production” (Model Penghasilan Pertuturan) oleh Levelt (1989) yang menjelaskan bagaimana pertuturan dihasilkan dan di manakah perancangan dijalankan semasa pertuturan, selain Yuan dan Ellis (2003). Meskipun begitu, Yuan dan Ellis (2003) menganalisis proses perancangan pelajar-pelajar secara teori.

Kajian ini bermatlamat untuk mengisi jurang kajian-kajian lepas yang dinyatakan di atas dan menganalisis proses perancangan pelajar-pelajar secara praktikal. Kajian ini dijalankan melalui kaedah eksperimen dengan subjek kajian. Peserta-peserta kajian ini diataskan secara rawak ke dalam empat (4) kumpulan, termasuk tiga (3) kumpulan eksperimen dan satu (1) kumpulan kawalan. Mereka diminta untuk melaksanakan

tugas di bawah empat (4) situasi: perancangan sebelum tugas, perancangan semasa tugas, perancangan sebelum dan semasa tugas, dan tanpa perancangan. Untuk mengenalpasti kesan-kesan perancangan, pertuturan peserta-peserta dianalisis dari aspek-aspek ketepatan, kerumitan dan kefasihan. Bagi mendalami proses perancangan pelajar-pelajar, soal selidik selepas tugas dianalisis secara kualitatif berdasarkan “Model of Speech Production” (Model Penghasilan Pertuturan) oleh Levelt (1989).

Keputusan-keputusan kajian menunjukkan bahawa perancangan sebelum tugas menyumbang lebih kepada prestasi pertuturan bahasa kedua pelajar-pelajar berbanding dengan perancangan semasa tugas. Selain itu, perancangan sebelum dan semasa perancangan membawa pengaruh positif kepada pertuturan pelajar-pelajar tetapi ianya tidak menunjukkan perbezaan yang besar terhadap kesan-kesan perancangan berbanding dengan perancangan sebelum tugas dan perancangan semasa tugas. Keputusan-keputusan kajian ini menyatakan bahawa prestasi pertuturan pelajar-pelajar dapat ditingkatkan jika diberikan masa dan panduan untuk merancang. Selain itu, keputusan-keputusan yang dikumpulkan daripada soal selidik menunjukkan bahawa pelajar-pelajar mengalami peringkat-peringkat yang dibentangkan dalam “Model of Speech Production” (Model Penghasilan Pertuturan) oleh Levelt (1989). Dapatan ini mengukuhkan teori Levelt (1989).

**Kata kunci:** kesan-kesan merancang pertuturan bahasa kedua (L2) naratif

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## **LIST OF ABBREVIATIONS**

**PTP: pre-task planning**

**WTP: within task planning**

**PTPWTP: pre-task planning plus within task planning**

**NP: no planning**

**C-unit: utterances, for example, words phrases and sentences, grammatical and ungrammatical, which provide referential or pragmatic meaning (Pica, et el., 1989, as cited in Ellis & Barkhuizen, 2005, p. 155)**

**T-unit: a main clause with all subordinate clause attached to it (Hunt, 1965, as cited in Ellis & Barkhuizen, 2005, p. 155)**

**AS Unit: a single speaker's utterance consisting of an independent clause or sub-clausal unit, together with any subordinate clause(s) associated with it ( Foster et el., 2000, as cited in Ellis & Barkhuizen, 2005, p. 147)**



## **CHAPTER ONE INTRODUCTION**

### **1.0 Background of the study**

English in Malaysia has gone through up-and-down developments due to the special history of the nation. Before the independence of Malaysia, English was widely used and it was also the medium of instruction in education (Ismail, 1994, p. 1).

The independence of the country was followed by the change in education medium. To ensure the nation's integration and unity, Bahasa Malaysia, the national language, was gradually utilized as the medium of instruction in schools instead of English. By 1970, all primary schools had employed Bahasa Malaysia as the medium of instruction. By the end of 1982, all the secondary schools had used Bahasa Malaysia as the instructing medium. The same conversion took place in tertiary institutions. By 1983, Bahasa Malaysia had replaced English as the medium of instruction across all levels of education, from primary schools to tertiary institutions. Meanwhile, English was taught as a school subject (Pandian, 2002, p. 3).

Years later, English obtained attention again owing to the declining English proficiency level among graduates. According to Asmah (1994), "graduates could not use the language as efficiently as their fore-runners who were educated in English proceeding to the independence of the country" (as cited in Sim, 2010, p. 1). Employers also complained that even young intelligent students have difficulty communicating in English (Yahaya, Yahaya, Lean, Bon & Ismail, 2011, p. 2)

However, communication, highlighted by employers overwhelmingly, is the most significant skill (Tong, 2003, p. 1). While one of the communicative competences lies in the capability to speak well and for most people, learning how to speak a L2 is

considered more significant than reading and writing (Zhang, 2007, p. 1). Moreover, oral communication in English is complicated and people need to learn for interpersonal communication (Jamshidnejad, 2011, p. 1). Students are considered promising and successful if they can communicate effectively in English. The chief executive of Institute for Democracy and Economic Affairs emphasized that students without good command of English have zero chance of success in the global market and even local companies also require English proficiency (Azizan & Mun, 2011, p. 1).

Nevertheless, a speaking process involves planning, organizing, presenting and reflecting (Saskatchewan Education, 1997, as cited in Khorasani, Pandian & Ismail, 2012, p. 424), which is not effortless. According to Skehan and Foster (1999), learners who are involved in the process of language production face a big mental challenge while producing language in real time and this leads to generating faltering or inaccurate language (as cited in Khorasani, et. al., 2012, p. 424).

In addition, being only able to speak English is insufficient. A person should be able to speak English in an accurate, complex and fluent manner. This purpose may be achieved through planning. The problems in speaking process may be compensated for through planning (Skehan, 1998, p. 99). Almost all speakers and writers need to determine the contents of their speech and writing as well as how to speak and write before they actually speak and write (Nariman-Jahan & Rahimpour, 2011, p. 1). Furthermore, in accordance with Foster and Skehan (1999), planned L2 discourse should push learners to extend what they are capable of saying (as cited in Ahangari & Abdi, 2011, p. 2).

Thus, planning plays an important role in speaking tasks. It is also significant in

the process of generating effective speech. Investigating whether the opportunity of planning can make Malaysian students skilled or more skilled in English especially orally, is worthy to be studied. Besides, learners' planning process is also an area worth further exploring.

### **1.1 Statement of the problem**

In line with Tong (2003), the majority of employers are not satisfied with their employed graduates' written and oral communication abilities especially the oral communication (speaking) skills which are more important because employees need to interact with each other and need to run the work task smoothly (p. 1). They (employers) complained that the graduates who have no proficiency in English are not qualified for the work. Even intelligent young graduates have difficulty communicating in English. For example, it is argued that many law students, graduated from a famous university in Malaysia, who do not have a strong command of English, are struggling in the Malaysian courts (Yahaya, et.al, 2011, p. 2).

A government survey revealed that many of the 60 000 graduates could not get jobs due to poor English. Meanwhile, one of the major factors that result in fresh graduate's unemployment has been frequently cited as the inability to communicate well in English. JobStreet, a Malaysian employment agency, conducted a survey on graduates' unemployment and found that the weak command of English to be the most prominent factor (56%) for graduates' unemployment in Malaysia (Idrus & Salleh, 2008, p. 3).

According to Ervin (1979), majority of English as a L2 learners experience the frustrating feeling of not being able to effectively participate in speaking, even though

they have spent years learning English. They struggle against the inadequacy in the resources needed to communicate their intended meaning. They have to give up their first preference ‘what they intend to say’ to take the second best ‘what they can say’ (p. 329).

In the Malaysian context, though Malaysian students have learned English for many years, they still have problems in speaking. They cannot communicate effectively after years of English learning. This situation has not been effectively addressed due to the lack of knowledge in factors affecting their speech. Hence, it is important to investigate what factors affect their speaking performance. One way of investigating is by looking at the effects of planning on learners’ oral production, which involves measuring students’ speech accuracy, complexity and fluency. Planning can facilitate speaking. An excellent speaker concentrates not only the overall meaning of what he intends to say, but also engages himself in the planning activity before and during the process of speaking (Scarino & Liddicoat, 2009, p. 78).

Researches concerning how planning affects L2 learners’ speaking performance have been done (Abdi, Eslami & Zahedi, 2012; Ahangari & Abdi, 2011; Bagheri & Hamrang, 2013; Crookes, 1989; Ellis, 1987; Mehnert, 1998; Mehrang & Rahimpour, 2010; Ortega, 1995; Ortega 1999; Rouhi & Marefat, 2006; Yuan & Ellis, 2003), but the findings are not consistent. Moreover, to the author’s knowledge, few related studies have been conducted in the Malaysian context. In addition, few studies have investigated learners’ planning process. Therefore, little is known whether planning can positively affect Malaysian students’ oral production or the underlying process of planning.

This study attempted to address these problems by exploring the planning effects and learners' planning process, which could shed light on how planning affects Malaysian students' speaking performance and their planning process as well.

## **1.2 Purpose statement**

This study attempts to investigate what effects there will be on learners' speaking performance if time is given to plan at various stages of Levelt's (1989) Model of Speech Production. To be more specific, the current study intends to investigate the effects of planning by relating types of planning to the quality of linguistic output of non-English majors who are freshmen (1<sup>st</sup> year) students studying Law in a university in Malaysia. It will explore learners' thinking process (before and during their speaking) as well.

## **1.3 Objectives of the study**

As stated earlier in background and problem statement, learners' English proficiency and competence has declined and they cannot speak English well. However, speaking well is significant at work place. In fact, there is an essential process prior to speaking which can facilitate speaking performance. This process is planning. Thus, it is worthy to know how well planning can contribute to learners' speaking performance and how they plan before and during their speaking process.

Therefore, the present study aims to:

- 1) investigate the effects of different types of planning on learners' speaking performance; and
- 2) to elicit the thoughts of different types of planners in their task approaching process based on the stages of Levelt's (1989) Model of Speech Production.



## **1.4 Research questions**

This study aims to understand whether planning contributes to the quality of L2 learners' speaking performance in terms of accuracy, complexity and fluency. Additionally, learners' planning process (before and during speaking) is also studied to deepen the understanding of planning effects.

To achieve the first objective, the following questions will be studied:

1) What effects do the different types of planning have on the accuracy of L2 learners' oral production in a narrative task?

2) What effects do the different types of planning have on the complexity of L2 learners' oral production in a narrative task?

3) What effects do the different types of planning have on the fluency of L2 learners' oral production in a narrative task?

To achieve the second objective, the following question will be studied:

4) What can learners recall about how they approached the task? Do learners' recollections about how they approached the task relate to the stages of Levelt's (1989) Model of Speech Production?

## **1.5 Limitations**

The first limitation lies in the generalization of the research results. The participants were 124 undergraduates who are majoring in law and another 20 participants participated in pilot studies were also undergraduates from Department of Islamic studies. The sample is not the representative of the entire undergraduate population. Therefore, the findings of this study cannot be generalized to represent the students of different proficiency and the students from different educational

backgrounds.

The second limitation exists in the measurements of planning effects. In this study, participant's speech is analyzed in terms of accuracy, complexity and fluency with the measurements adopted from Ellis and Barkhuizen (2005). Since there are numerous measurements for accuracy, complexity and fluency in Ellis and Barkhuizen (2005), different measurements may generate slight difference in the results. Besides, according to previous researches, the more measurements are used, the more valid the results could be obtained. However, the current research merely used two measurements for measuring each aspect due to time limitation.

The third limitation locates in the homogeneity of the participants' L2 proficiency level. This study did not conduct pre-test to check learners' speaking proficiency in terms of accuracy, complexity and fluency. The selection of the participants is based on the overall test score of Malaysian University English Test (MUET). The students who achieved overall Band 4 MUET are the targeted participants of this study. The test did not examine the detailed aspects of speaking proficiency such as the accuracy, complexity and fluency. Besides, the selection of participants did not consider the fact that some students may prefer using English as their first language during studying and living, which may affect the research results.

The fourth limitation rests in the gender of the participants which is imbalanced. Amongst the 124 participants who participated in the main data collection, 99 are female students and 25 are male students. This unbalanced gender condition may affect the research findings because linguists have found the evidence of sex-exclusive's language forms. There is an 'obligatory grammatical distinction between female

speakers and male speakers' such as the usage of verb forms, phonology, grammar and lexis. "Women are relatively polite, gentle, soft-spoken, non-assertive and empathetic" (Okamoto, 1995, as cited in Mesthrie, Swann, Deumert & Leap, 2009, p. 215). "Men have many expressions peculiar to them. Women understand them but never pronounce those words themselves. On the other side, men never use the words and phrases used by women" (Jespersen, 1922, as cited in Mesthrie, et al., 2009, p. 214). Thus, in this study, the stories male students narrated may be different from female students' and the gender imbalance may affect the results.

The fifth limitation consists in the recollections of learners' approach process to the task. This study used open-end questionnaire to elicit information on how learners approach the task expecting that immediate retrospection could be practical in yielding useful information on how learners allocated their attention resources. However, learners' ongoing thoughts during task approaching may be lost. Furthermore, there may be more information that does not concern learners' thoughts of task approach.

The sixth limitation concerns the task used in collecting the data. The study pertains to a narrative task. Thus the results are exclusive of other types of speaking such as ceremonial speaking, conversation, persuasive speaking, informative speaking, and descriptive speaking, and so forth.

## **1.6 Significance of the study**

Among the related researches, some state that pre-task planning can significantly better benefit learners' speaking performance than within-task planning in the light of accuracy, complexity and fluency. However, others either claim that there is no remarkable distinction in the influences on the particular three aspects between these

two types of planning, or within task planning can contribute more to learners' speech accuracy and complexity than pre-task planning.

Conclusive findings still cannot be drawn. Hence, exploring the effects of the two types of planning on English as Second Language (ESL) learners is considered necessary and significant.

Furthermore, previous studies investigated learners planning process in terms of the planning strategies learners used while planning. Few studies have explored learners' planning process from the perspective of Levelt's (1989) Model of Speech Production, with the exception of Yuan and Ellis (2003). In Yuan and Ellis (2003), the researchers theoretically analyzed learners' planning process on the basis of Levelt's (1989) speech production model and differentiated pre-task planning from within task planning. The present research regarding learners' planning process was totally based on the data collected by post-task questionnaire. Thus it practically analyzed and compared learners' planning process based on Levelt's (1989) speech production model. The results obtained in the current study revealed a different picture of learners' planning process from that of Yuan and Ellis (2003), at least to a certain extent.

Additionally, analyzing the effects of planning on students' speech may help educators and researchers understand how different planning conditions may affect learners' speaking performance. Eliciting learners' ongoing planning thoughts reveals their procedure of information processing regarding task approach. This is a window to know how learners process information in a narrative speaking activity, which will support and strengthen Levelt's (1989) Model of Speech Production theory.

## **1.7 Operationalization of definitions**

### **1.7.1 English major**

The English major (alternatively ‘English concentration’; ‘B.A in English’) is a term in the United States and a few other countries for an undergraduate university degree focused around the consumption, analysis and production of texts in the English language. The term may also be used to describe a student who is pursuing such degree (English studies, 2012, para. 4).

Here, in this study, English major refers to the student who pursues the degree of B.A in English while non-English major refers to the student who seeks bachelor degree in other domain rather than in English.

### **1.7.2 Classification of planning**

Planning is an indispensable part in problem solving. It involves deciding to select what linguistic devices to affect the audience in the desirous way (Ellis, 2005, p. 3).

There are two types of planning which are identified by the time when planning happens. Pre-task planning refers to planning before the task is actually performed, whereas online/within task planning refers to planning during (as opposed to before) the performance of the task (Ellis, 2005, p. 3).

In Ellis (2005), pre-task planning is further categorized into rehearsal and strategic planning. Rehearsal is a form of practice or repetition for the real performance; while strategic planning deals with planning the performed content (p. 3).

Ellis (2005) defined within-task planning as the on-line planning that takes place during a task performance. They are interchangeable (p. 4). However, according to Sim (2010), the term within-task planning is more accurate to describe the task condition (p.

41). Therefore, for the convenience of understanding, this study will also use within-task planning instead of online planning in the succeeding part of this research.

Although pre-task planning and within-task planning can be distinguished from each other, they are not entirely exclusive: if there is no time limit, within-task planning will happen during the performance of pre-task planning.

In addition, planning can also be differentiated between whether it is guided and unguided. Under guided planning situation, the learners are specifically instructed on what they should prepare for the task and how to prepare, whereas under the unguided planning condition, learners receive no such instructions and plan on their own for the task (Nakakubo, 2011, p. 42).

### **1.7.3 Linguistic output**

Linguistic output refers to data of pronunciation (speaking), sentences (writing), listening comprehension rate, and reading comprehension rate (Kotani, Yoshimi, Nanjo & Isahara, 2011, p. 1419). Here in this study, linguistic output refers to data of pronunciation (speaking).

### **1.7.4 Narrative tasks**

According to Tavakoli and Skehan (2009), narrative tasks refers to ‘short stories, based on sequence set of picture prompts, which, (with the purpose of eliciting oral language performance), are shown to participants while they are asked to narrate the story’. Narrative tasks have desirable attributes: easy to understand and to prevent learners from misinterpreting the story or being confused. Meanwhile, the story was amusing and it could motivate the learners. Lastly, the story was not too simple so that the participants would be able to exhibit their L2 abilities (as cited in Nakakubo, 2011, p.

47).

Moreover, oral narratives are monologic rather than dialogic, thus learners' performance are not influenced by interactional variables (Yuan & Ellis, 2003, p. 9).

Additionally, narratives are familiar to most learners and can be manipulated naturally (Ortega, 1999, p. 122). Skehan and Foster (1999) stated that narrative task has a clear inherent structure. The episodes are short and amusing. It is entirely mimed and can avoid the interaction between learners' linguistic knowledge and listening skills (as cited in Khorasani, Pandian & Ismail, 2012, p. 431).

### **1.7.5 Accuracy, complexity and fluency**

#### **1.7.5.1 Accuracy**

Based on Skehan (1996b) accuracy means the extent to which the target language is well-produced according to its rule system (as cited in Ellis & Barkhuizen, 2005, p. 139).

Skehan and Foster (1999) defined accuracy as the ability to avoid errors in performance, possibly reflecting higher levels of control in the language, as well as a conversation orientation, that is, avoidance of challenging structures that might provoke errors (as cited in Fahim, Nourzadeh & Fat'hi, 2011, p. 4).

#### **1.7.5.2 Complexity**

Complexity is how well learners can generate elaborated language. It can refer to the learner's preparedness to use a wide range of different structures (Ellis & Barkhuizen, 2005, p. 139).

#### **1.7.5.3 Fluency**

Fluency can both mean spoken fluency and written fluency. In this study, it refers

to spoken language fluency.

Ellis and Barkhuizen(2005) states that fluency is the production of language in reality without excessive pausing or hesitation. It is achieved through the use of processing strategies that enable learners to avoid or solve problems quickly (p. 139).

According to Hartman and Stock (1976), a fluent language speaker can use the structures of a language accurately while focusing attention on content and can speak at normal conversational speed when necessary (as cited in Brown, 2003, p. 1).

Alternatively, on the basis of Fillmore (1979), fluency consists of the following abilities: Firstly, speakers can fill time with talk without awkward pauses for a comparatively long time. Secondly, they should talk in coherent, reasoned, and meaningful sentences. Thirdly, their talking can cover various contexts. Finally, they ought to be creative and imaginative in utilizing the language (as cited in Brown, 2003, p. 1).

## **1.8 Organization of the dissertation**

The current research consists of six chapters. The first chapter gives the general introduction of this study. The second chapter outlines the review of related studies of the effects of planning on the quality of L2 speaking in the field of accuracy, complexity and fluency. Chapter Three describes methodology including the type of data, data collection method and analyses. The Fourth and Fifth chapter presents the research results and discussion. Chapter Six concludes the study. The recommendation for future studies ends this study in Chapter Seven.

## **1.9 Chapter review**

The introduction has presented a concise background of the present study. Then the



research problem, stated in this part, is followed by research aims, objectives, significance, limitations, operationalization of the definitions and outline of the study. The subsequent chapter reviews previous studies related to the current study.

## **CHAPTER TWO LITERATURE REVIEW**

### **2.0 Chapter overview**

The first chapter presented a brief background of the study, the research intention, and research questions. This chapter first gives the theoretical framework and then presents previous measurements used to measure learners' speech accuracy, complexity and fluency. Finally, previous studies concerning the effects of planning on L2 learners' speaking performance is reviewed.

### **2.1 Theoretical framework**

#### **2.1.1 Introduction of Levelt's (1989) Model of Speech Production**

Most aspects of L2 production can be explained by models of L1 production, though some differences exist between them. Poullisse (1997) proposed three major differences between L1 and L2 speech production (as cited in Guerrero, 2004, p. 39).

The first difference is the size of L2 lexicon and the specification of its items. Generally, L2 knowledge is less complete than L1 knowledge. L2 speakers sometimes find it difficult to express themselves with appropriate words. Some lexis is not fully specified for correct information, e.g. semantic information, which can lead to errors. Besides, learners' L2 grammar knowledge can be underdeveloped and this can result in the production of less complex or ungrammatical sentences (Guerrero, 2004, p. 40).

The second difference is that certain aspects in L2 production processing are not as automatic as that in L1. The L2 production may be more hesitant, has slower speech rate and the degree of automaticity may vary relying on L2 learners' proficiency. Poullisse's (1997) study showed that L2 speakers produce twice as many slips of the tongue in L2 than in L1 (Guerrero, 2004, p. 40).



According to Levelt (1989), the first stage in speaking is conceptualization. This is where a speaker experiences some mental activities like conceiving an intention, selecting related information to be expressed, determining what and how to say and monitoring his own productions and tracking of what has been said (Harley, 2008, p. 398). These mental activities are referred to as conceptualizing and the sub-serving processing system is referred to as the conceptualizer. The product of the conceptualization is preverbal message which is an organized conceptual structure. To generate preverbal message, declarative knowledge and situational knowledge is accessed. Declarative knowledge is a speaker's general experience of the world and himself. Situational knowledge is the knowledge of present communicative context and discourse model, e.g. what has been said (Levelt, 1989, p. 10).

This is the stage where planning first takes place. Levelt (1989) suggests there are two stages of planning during conceptualization: macro-planning and micro-planning:

The former involves the elaboration of some communicative goal into a series of sub-goals and the retrieval of appropriate information; the latter involves assigning the right propositional shape to these chunks of information, and deciding on matters such as what the topic or focus of the utterance will be. (p. 11)

In other words, macro-planning involves selecting information to be expressed; while micro-planning involves dividing the selected information into smaller conceptual 'chunks'. The output of conceptualizer or macro- and micro-planning is the input to the Formulator.

Formulation is the stage to encode the preverbal message. It involves translating the conceptual chunks/structure into linguistic forms through two major components: grammatical and phonological encoding. This is also the stage where planning occurs. Grammatical encoding procedure involves three stages. The first stage is selecting the

words a speaker wants to say --- the process of lexical planning. Next step, words are put together into an orderly string, for example, phrases --- surface structure. In the last stage, these words and phrases can be put into sentences --- the process of syntactic planning. Phonological encoding involves turning words into sounds in appropriate sequence, speaking at the right speed with proper prosody (intonation, pitch, loudness and rhythm). The sounds must be generated in the correct order and specify how the muscles of the articulatory system should be moved (Harley, 2008, p. 398).

The outcome of phonological encoding is the phonetic plan or the internal speech of how the planned speech should be articulated. The final product from formulation is the input to the Articulator.

Articulation is the stage through which the internal speech is executed. In effect, the internal speech can be generated before the actual articulatory execution. To address this asynchrony, the internal speech can be temporarily stored in the Articulatory Buffer. Later, the articulator can regain chunks of internal speech from it and unfolds them for execution. Then, the overt speech is produced from articulation (Levelt, 1989, p.13).

A speaker has access to his overt speech. He can listen to his own speech. This involves an Audition processing component which transforms acoustic signal into phonetic presentations. Via audition, the speaker can understand what he is saying. He monitors his output after production which can be manifested in the form of self-correction. This processing takes place through the Speech-Comprehension System.

The speaker also has access to his internal speech. It is a vital feature of Levelt's speech model: the planned speech can go back to the conceptualization stage for monitoring through Speech-Comprehension System. Thus, the speaker can monitor his

internal speech and discover the problems before he speaks. In this situation, monitoring happens before the actual speech production.

### **2.1.2 Rationale for selecting Levelt's (1989) Model of Speech Production in the current study**

This section provides a rationale for selecting Levelt's (1989) Model of Speech Production for the purpose of this study.

Firstly, this model is employed because it is a well-known and generally accepted model of speech processing (Yuan & Ellis, 2003, p. 5) and utilized by many researchers such as Dewaele and Furnham (2000), Temple (1997), and Weissheimer and Mota (2009) and so forth. In addition, this model is based on a long tradition of psycholinguistic research and on rich empirical findings (Guerrero, 2004, p. 24).

Secondly, in the current study the research questions and the post-task questionnaire questions are designed based on this theoretical framework.

As mentioned in page 16, Levelt's (1989) Speech Production Model unfolds the distinct process of how speaking takes place, where planning occurs and how planning opportunities affect learners' speaking performance. Learners formulate and monitor their internal speech before they speak. After undergoing these processes, learners will detect some problems before speaking. Then they will try to address the problems, which may result in more appropriate or ideal output (Levelt, 1989).

Since all these types of planning and monitoring occur during a speaking act, will giving learners time to plan before and during their speaking contribute to a better performance? Related questions have been studied by previous researchers such as Ellis (1987), Crookes (1989), Ortega (1995), Mehnert (1998), Ortega (1999), Yuan and Ellis

(2003), Rouhi and Marefat (2006), Mehrang and Rahimpour (2010), Ahangari and Abdi (2011), Abdi, Eslami and Zahedi (2012), and Bagheri and Hamrang (2013), yet conclusive findings cannot be reached. Meanwhile, what happens during learners' speaking performance? How do learners plan? The current study attempted to address these questions.

### **2.1.3 Rule-based system**

In the light of Skehan (1998), a person's knowledge of language consists of two systems. One is the rule-based system and the other is the exemplar-based (memory-based) system. These two comprise the dual-mode system. The rule-based system is made up of abstract presentations of the underlying patterns/rules of the language. The exemplar-based system includes accumulations of large number of formulaic items and discrete lexical items. Users of rule-based system rely on analysis, while users of exemplar-based system attempts to match current input with correct previous input. To yield the fluent language, learners normally access the exemplar-based system. To generate more accurate or complex language, learners' attention is drawn on their rule-based system and involves more syntactic processing (p. 53 & p. 89).

Skehan (1998) proposed that the rule-based system is generative, creative and basically analytic. The meanings can be expressed precisely. Nonetheless, "the operation of rules results in a heavy processing burden during ongoing language usage. It requires detailed attention during comprehension and assembly during production" (p. 73). Therefore, for L2 learners, they are likely to have capacity-stretching difficulties. With limited attention resources, learners prioritize the allocation of attention and

trade-off effects usually occur among accuracy, complexity and fluency (Skehan, 1998, p. 89).

#### **2.1.4 Trade-off effects**

According to Skehan (1998), under different planning conditions, learners need to make different decisions for attention allocation. When they decide to attend to their lexicalized knowledge, fluency could be boosted. When they determine to attend to rule-based system, complexity and/or accuracy could be improved. The key influence to these phenomena is planning opportunity. In other words, the effects of planning could be selective, for instance, favoring accuracy at the expenses of fluency and vice versa. This is owing to the limited attention capacity during a task performance which is complex and multidimensional. Thus the three aspects, namely, accuracy, complexity and fluency, compete for the internal processing resources or the attentional resources, which result in committing attention to one area at the expenses of the others. During the actual performance, learners, facing limited attention resources and performance pressure, tend to prioritize one aspect of the language and concentrate mainly on this to make some improvements. The other aspects receive less attention and will become worse or unchanged. These phenomena are named trade-off effects (Skehan, 1998, p. 73 & p. 168).

Trade-off effects have been observed in previous studies of L2 task performance, especially in learners with limited L2 proficiency. However, there are disagreements concerning the aspects of a language that trade off the planning effects.

The trade-off effects that Skehan and Foster (1997) observed involving complexity and accuracy. In the decision-making task, planned speech was significantly more



complex than the unplanned one, while there was no much change in the effect of accuracy. The situation was diverse in the narrative task: planned speech was significantly more accurate than the unplanned one, but there was no much difference in complexity (p. 18). They concluded that the limited attention capacity of L2 learners allowed them to focus mainly on one aspect of a language: if they prioritized their attention resources to accuracy, then complexity would be sacrificed, or vice versa.

Wendel (1997) reported the trade-off effects between accuracy and fluency. Based on the results of his study, he suggested that planning types could channel learners' attention to certain aspect of a language. He claimed that, while performing the real task, pre-task planning could direct learners' attentional resources to the organization of propositional content which would result in great fluency. In comparison, accuracy relied on learners' moment-by-moment decisions. During the actual task performing, however, when learners' attention was channeled to the linguistic repertoire, they would concentrate on moment-by-moment decisions, which would lead to higher accuracy at the expense of fluency. Thus, if learners allocated their attention mainly or fully to linguistic repertoire, the fluency of their oral production would have to pay a price.

The trade-off effects Wendel (1997) suggested were supported by Yuan and Ellis (2003). In their study, trade-off effects between accuracy and fluency were also detected. From the results, they reported that fluency and accuracy competed for prioritized attention. If learners were given time to plan in advance, they assigned the priority to fluency, and therefore accuracy was sacrificed. When learners had to plan within task, they attended to accuracy, which resulted in deteriorated fluency. Apart from this, Yuan and Ellis reported another type of trade-off effects which involved grammatical

accuracy and lexical variety. In their research, learners under pre-task planning generated greater lexical variety; nevertheless, their grammatical accuracy went down. In contrast, learners under within task planning yielded more grammatically accurate language at the expense of less rich vocabulary. They argued about the possibility that accuracy relied more upon the opportunity of within task planning.

Therefore, they proposed that if L2 learners were offered adequate time to plan both before and within task, they would be able to attend to all aspects of a language and the trade-off effects would be less obvious. Based on what they proposed, they suggested another planning condition: pre-task planning plus within task planning for further study. This suggestion was taken by the current study and the effects of pre-task planning plus within task planning on L2 learners' speech were examined and compared with pre-task planning, within task planning and no planning conditions.

### **2.1.5 Rationale for trade-off effects**

This section rationalizes the selection of trade-off effects as one of the frameworks. Trade-off effects have been observed and discussed in previous studies to explain the results of planning effects. As observed and discussed by previous researchers, the trade-off effects could give us insight into why learners could not achieve accuracy, complexity and fluency simultaneously during the task performance. It helps to understand how planning opportunity influences the priority learners give to certain aspect of a language. It could also explain why learners achieve fluency rather than accuracy and/or complexity, or vice versa.

## **2.2 Measurements for accuracy, complexity and fluency used in previous studies**

As stated by Ellis and Barkhuizen, the accuracy, complexity and fluency of

learners' language, both oral and written production can be measured (2005, p. 145). In this section, the measurements for L2 learners' speech accuracy, complexity and fluency used by previous researchers are reviewed.

### **2.2.1 Measurements for accuracy**

According to Ellis and Barkhuizen (2005), plenty of measures of accuracy have been used by previous researchers: The main measures include the number of self-corrections, percentage of error free clause, errors per 100 words, percentage of target-like verbal morphology, percentage of target-like use of plurals and target-like use of plurals (p. 150).

Ortega (1995) used percentage of target –like verbal morphology to test learners' accuracy. Mehnert (1998) and Abdi, Eslami and Zahedi (2012) employed the percentage of error-free clauses and the number of error per 100 words for accuracy measuring. Crookes (1989) utilized error-free T-units, number of target-like used of definite, indefinite articles and plurals in the study of learners' oral accuracy. T-unit is a main clause with all subordinate clauses or non clausal structures that are attached to or embedded in it (Palmer, 2005, p. 3).

Error-free clauses, correct verb forms and the number of grammatical errors in clauses were used in the researches of Yuan and Ellis (2003), Rouhi and Marefat (2006) and Ahangri and Abdi (2011). Mehrang and Rahimpour (2010) used error-free T-units to examine the planning effects on learners' speech accuracy. The percentage of error- free clauses, the number of errors per 100 words and the percentage of correctly used verbs were used in Bagheri and Hamrang (2013) to investigate the planning effects on L2 learners' speech accuracy.

### **2.2.2 Measurements for complexity**

Based on Ellis and Barkhuizen (2005), complexity measures can be categorized into: interactional, propositional, functional, grammatical and lexical (p. 152).

According to Ellis and Barkhuizen (2005), the interactional complexity consists of number of turns and mean turn length. The propositional complexity is examined by number of idea units encoded. Functional complexity is tested by the frequency of some specific language function (e.g. hypothesizing). Grammatical complexity includes the amount of subordination, the use of some specific feature linguistic feature like different verb forms, and the mean number of verb arguments. While lexical complexity is studied by type-token ratio.

In previous researches, the frequently used complexity measures are sentence, grammatical and lexical ones. Ahangari and Abdi (2011) and Rouhi and Marefat (2006) used the number of the words per T-unit to measure complexity. Yuan and Ellis (2003) used the ratio of clauses to T-units, the total number of different grammatical verb forms, and mean segmental type-token ratio to examine learners' speech complexity. Ortega (1999) used simple percentage agreement, words per utterance and type-token ratio to explore learners' speech complexity. Crookes (1989) employed type-token ratio and words per subordinate clause and utterance to examine the complexity of L2 learners' speech. Mehnert (1998) utilized C-Units, T-Units and dependent clauses to measure the complexity of L2 learners' oral production. C-Unit consists of independent clauses and any modifiers or it can also contains incomplete sentences in answer to questions (Palmer, 2005, p. 3)

Ortega (1995) utilized propositional complexity and type-token ratio to investigate

the effects of planning on L2 learners' speech complexity. Mehrang and Rahimpour (2010) used the number of lexical (lexical density) to explore the planning effects on learners' speech complexity. Badheri and Hamrang (2013) used the number of T-units and the total number of verb forms to measure effects of planning on the complexity of L2 learners' oral production.

### **2.2.3 Measurements for fluency**

In accordance with Lennon (1999), measures of fluency consist of two principle types: temporal variables regarding the speed of speaking/writing and hesitation regarding disfluency. Temporal variables includes speech/writing rate (usually measured in terms of the number of syllables produced per second or per minute, excluding disfluencies), number of pauses, pause length and length of run (the mean number of syllables between two pauses of a pre-determined length, e.g. 1 second, excluding disfluencies). Hesitation phenomena are examined by false starts, repetitions, reformulations and replacements (as cited in Ellis & Barkhuizen, 2005, p. 157).

Not all researchers used the above measures to examine the learners' speech or writing fluency because some researchers thought it is difficult to do; while others actually utilized those measurements to test the learners' speech fluency. Ortega (1995) used repetitions, self-corrections and partial words to measure learners' speech fluency. Mehnert (1998) used the number of pauses, total pausing time, mean length run and speech rate to examine the planning effects on L2 learners' speech fluency. Ortega (1999) employed pruned speech rate in syllables per second to measure the fluency of L2 learners' oral production. Yuan and Ellis (2003) used the number of syllables per minute to measure the fluency of learners' narrative oral production. Rouhi and Marefat

(2006) and Abdi, Eslami and Zahedi (2013) utilized repetitions, false starts, reformulations and replacements to explore learners' speech fluency. Mehrang and Rahimpour (2010) used the number of words per minute to measure the planning effects on the fluency of L2 learners' speech.

### **2.3 Previous studies of effects of planning on L2 learners' speaking performance**

Crookes (1989) used a variety of measures to assess complexity and accuracy of 40 Japanese ESL learners' oral output under two tasks, namely, describing the construction of Lego Model and giving direction. In the research, planning was operationalized at two levels: the minimal planning condition---no time for pre-task planning (participants were instructed to start their task instantly after they received the instructions). For the planning condition, participants were given 10 minutes to plan their speech in terms of words, phrases and ideas. Of the two tasks, pre-task planned speech was more complex than the no time planned speech in the short run, but no remarkable difference in terms of accuracy between the two conditions.

However, in Crookes' research, there was a big age difference (mid 20s to mid-40s). Participants of different age have different experience and perception in learning and using L2. These might affect the research results. Moreover, whether the researcher set time limit for completing each task was unclear. Without time limit, no time planned condition can actually be within task planning. That might make the results somewhat confusing and vague.

Results of Crookes' study were in contrast with Ellis' (1987). In his investigation to explore the impact of planning on the accuracy of 3 different forms of past tense (the regular past, the irregular past and the copula) on both oral and written output of 17

intermediate ESL learners, Ellis used the same group of subjects to finish two tasks under 3 situations: the subjects wrote a story for a strip of pictures within 1 hour---pre-task planned writing (Condition 1); the same subjects then retold the story without access to their written work---pre-task planned speech (Condition 2); the same subjects had to tell a story on a new set of pictures---within task planned speech (Condition 3). The results showed that: for the regular past tense, pre-task planned speech was more accurate than that of within task planned; for the irregular past tense, there was no difference among the 3 conditions; for copula, within task planned speech was significantly lower in accuracy than that of pre-task planned.

However, this research, as Crookes (1989) pointed out, confounded written task with oral task and those two tasks ought to be differentiated because written task affords more opportunity for within task planning than oral task (as cited in Yuan & Ellis, 2003, p. 5).

Ortega (1995) studied the quality of 28 low-intermediate learners' oral output of Spanish as a L2 on two narrative tasks under pre-task planned and no time planned conditions. Under both cases, speakers first listened to a L1 story while looking at a set of pictures. The difference was that under pre-task planned condition, the speakers had 8 minutes to prepare before they performed the story after they finish listening. Under the no time planned condition, speakers had to retell the story immediately right after finishing listening. In both situations, speakers had to retell the story in Spanish while looking at the same set of pictures as the one used previously (p. 8). After analyzing the data, Ortega found that there was greater complexity in pre-task planned speech. Meanwhile, there was no significant discrepancy in terms of accuracy. As for fluency, it

deteriorated in no time planned condition. Actually, Ortega's (1995) research findings had similarity with those of Crookes (1989).

Nonetheless, in this research, Ortega had the same problem with Crookes (1989): she did not establish a time limit to complete the tasks either, which may affect the research validity.

Mehnert (1998) investigated whether the time length of planning influences the quality of L2 linguistic output. In the study, two tasks were utilized in the form of monologues---leaving messages on a friend's answering machine. The subjects were 31 German learners who were assigned to four groups. Of the four groups, three were experimental ones, which experienced 1, 5 and 10 minutes planning time, separately, before performing. The 1 control group had no time for preparing before starting the task. Results showed that fluency increased with more planning time. Complexity was significantly higher for the 10-minute planning situation than in other 3 conditions. Accuracy was boosted with 1 minute planning but it was not increased with more allotted planning time (pp. 98-99). But no significant distinctions of planning effects on learners' speaking performance across the different task conditions.

Mehnert's study did not ensure the homogeneity of participants because the participants had different L1 background: English, Spanish, French, Russian, Italian, Greek, Finnish, Polish and Persian. Moreover, whether there was a time limit for each condition was also unclear, which may cause the same problem as in Crookes (1989) and Ortega (1995).

Ortega (1999) used story-retelling task to investigate whether pre-task planning can better benefit L2 learners' linguistic output than within task planning. The



participants, 64 advanced-level Spanish learners, were the native speakers of American English. They were randomly divided into two groups: 32 story listener-and-teller and 32 the story listeners (the former had to retell the story in Spanish to the latter). Then the story listener-and-tellers were randomly assigned to four subgroups which experienced 6-phase tasks, and the story listeners were also randomly divided into four subgroups, but only the tellers' performances were analyzed. In pre-task planned condition, the participants first listened to a taped L1 story while looking at a strip of eight pictures, and then they had 10 minutes to prepare retelling it. While under the no pre-task planning condition, participants followed the same procedure, but they had to retell the story immediately after the aural and visual stimulation. When the participants finished retelling the story, the researcher arranged a retrospective interview instantly to document what they did during the 10-minute pre-task planning period. She found that pre-task planned speech resulted in much higher fluency and more complex syntax than that of the no pre-task planned, but no different effects on lexical range. Also there was not much difference in accuracy between the two conditions. As for the retrospective interview, pre-task planning opportunity could boost speakers' oral production in morpho-syntactic and utterance-level aspects, as well as lexical and semantic aspects. They also monitored their output during both pre-task planning and task performance.

In Ortega's (1999) design, each group experienced both with and without pre-task planning which was fresh in the area of ESL research. But the researcher was not clear about the time limit for the participants to complete the task. Moreover, the research design was not favorable to measure the speakers' authentic oral complexity: the group of speakers retold the story to the group of listeners and the listeners had to finish a task

based on what they heard. In the actual process, the speakers recalled that they somewhat intentionally reduced the usage of complex words, phrases and sentences to ensure that the listeners could follow them, thus the speakers' real speech complexity could be affected and could not be truly reflected.

Yuan and Ellis (2003) investigated the effects of planning on fluency, complexity and accuracy of L2 learners' narrative oral output. The subjects were 42 full-time undergraduate students majoring in the International Business Department in a Chinese university. The task was narrating a story orally based on a strip of pictures and the pictures taken from Heaton (1975). Planning was operationalized at three levels: no time planning, pre-task planning and within task planning. Under no planning condition, participants carried out the task instantly after studying the pictures for 30 seconds and had to finish it within 5 minutes to avoid within task planning. Under pre-task planning condition, participants had 10 minutes to prepare their speech. Like the participants under no planning condition, those under pre-task planning condition also had to finish in 5 minutes to limit the opportunity of doing within task planning. Under within task planning condition, participants performed the task after reading the pictures for 30 seconds, but they had unlimited time to plan for the task. Dependent variables in terms of fluency, complexity and accuracy were measured. Researchers found that pre-task planning group performed more fluently than the within task planning group. Pre-task planning condition had positive effects in grammatical complexity and lexical variety, while within task planning condition was only effective in grammatical complexity. Within task planning had positive effect on accuracy which could not be found from pre-task planning and no planning.

Planning time and its influences on fluency, complexity and accuracy of L2 output across modalities were investigated by Rouhi and Marefat (2006). In this three-staged study, 37 English majors (selected based on a test) were required to watch a 7-minute episode of the cartoon Tom and Jerry first. Then they were told to have 10 minutes to prepare the organization of the content and accuracy for 5-minute oral narration about the episode before performing (Stage 1). Stage 2: after a short break, the subjects watched the second episode of the same cartoon, but they had to start writing immediately and also had to finish their written narration in a maximum of 12 minutes. Stage 3: after narrative writing, the third episode of the same cartoon was played to them. Subjects were told to start narrating their accounts of the episode immediately when it ended and had to finish within 5 minutes. Then the audio taped data were coded to measure fluency, complexity and accuracy. The written data were only analyzed for complexity and accuracy. Results showed that the speech of pre-task planned group was more fluent than that of no time planned and within task planned. There was not much difference in complexity across the three task conditions. As for accuracy, under pre-task and within task planning conditions, learners produced more accurate speech.

Nevertheless, Rouhi and Marefat used confounded modalities like what Ellis (1987) did. In their research, both the pre-task planning and no planning tasks were oral but the within task planning task was written, which made the results less stringent.

In the research of Mehrang and Rahimpour (2010), the impact of planning conditions on L2 learners' oral production was explored. 64 randomly selected Iranian ESL learners performed two different operationalized tasks. One was structured, the other was unstructured. The task was to narrate a story based on cartoon scripts. The

participants were randomly assigned to two groups under two types of planning conditions: pre-task planning and non pre-task planning. Those who were under pre-task planning condition were given 5 minutes to prepare the story and they had to complete the task within 2 to 3 minutes. For those who were under non pre-task planning condition, they were given only 30 seconds to plan before speaking and had to finish the task in 2 to 3 minutes as well. T-test analysis resulted that planning either under structured or unstructured task can slightly improve learners' speech accuracy, but the positive influence was not significant. The planning effects on speech fluency and complexity under the two tasks were mixed. Planning under unstructured task led to more complex but less fluent speech. Planning under structured task resulted in slightly more fluent but less complex speech.

In Mehrang and Rahimpour (2010), the researchers only employed one measurement to measure learners' speech accuracy, complexity and fluency unlike other researchers who used two or more than two measurements for each aspect of the language. Thus, in comparison with other studies, the findings by Mehrang and Rahimpour (2010) may be somewhat less strong. Furthermore, the researchers did not insure learners' homogeneity in terms of their English learning experience. The participants' age in their study ranged from 14 to 50. Across the huge age difference, learners' experience in language learning and using can be distinctly different, which can affect the research findings.

Ahangari and Abdi (2011) employed a quasi-experimental design to investigate the effects of pre-task planning on speech complexity and accuracy of Iranian students who were English majors. With the same decision-making task (monologue), the

experimental group was given 10 minutes to plan before the real performance, while the control group was provided with zero planning time. T-unit analysis was utilized to analyze complexity and accuracy. After t-test analysis, they found that pre-task planning condition had a positive influence on learners' speech complexity but there was no significant distinction on the accuracy of learners' oral performance between the two groups.

Actually, according to their procedure, Ahangari and Abdi's research reflects a true-experimental design rather than a quasi-experimental design because in their research the participants were randomly assigned into two groups. Furthermore, the design of the task conditions was somewhat problematic: one was pre-task planning; the other one was no planning---as the researchers presented later in data analysis section. Due to the lack of introduction of the time limit to complete the task, hence, whether the non planning refers to no planning at all, non-pre-task planning or within task planning was quite unclear and confusing.

Abdi, Eslami and Zahedi (2012) examined the effects of pre-task planning on Iranian ESL learners' speech accuracy and fluency through the quasi-experimental design. The 40 intermediate language learners were randomly assigned to two groups: experimental group and control group with 20 in each. The participants were required to complete the decision-making task under pre-task planning condition and non pre-task planning condition. The pre-task planning participants were given 10 minutes planning time before performing the task. The non pre-task planning participants were given zero pre-task planning time and were required to start the task immediately after task was received. Learners' speeches were recorded and transcribed later for analysis. Fluency

was measure by a wide range of measurements including repetitions, false starts, reformulations and replacements. Accuracy was examined by errors per T-unit. Independents samples t-tests were employed to analyze and compare the data. The researchers found that learners' speech fluency could be significantly enhanced under 10 minutes' pre-task planning condition. In terms of speech accuracy, it could be improved as well under pre-task planning condition, but the result did not reach statistically significant difference.

Abdi, Eslami and Zahedi (2012) utilized a wide range of fluency measurements in investigating the planning effects; therefore, the results were strong and persuasive in comparison with those of other studies. However, they used only one measurement to examine learners' speech accuracy, thus, the findings in this area was somewhat less strong than others. Furthermore, the researchers did not state whether there was a time limit for task completion under the both planning conditions which made the results less distinct as it should be.

Bagheri and Hamrang (2013) investigated the effects of planning conditions and gender on L2 learners' speaking performance. The study was conducted among Iranian students of intermediate English proficiency level. 40 participants, selected based on an interview, were first divided into planning and non planning groups, and then were assigned to male and female groups. The task for them was to narrate a story based on strips of pictures. For those who were under planning condition, they were provided with 10 minutes to prepare the story in advance. For those who were under non planning condition, they had to start telling the story 30 seconds after they received the task. Participants' narrations were recorded and then were transcribed for accuracy and

complexity analysis. Independent sample t-test was used to analyze and compare the planning effects. The researchers found that 10 minutes' planning before performing the task could significantly improve learners' speech accuracy and complexity. Yet gender had no significant effects on L2 learners' speaking performance.

Nevertheless, in Bagheri and Hamrang (2013), whether the researchers arranged the time limit for the participants to complete the task was not stated, which maybe affected the reliability of the findings.

On the basis of the studies done by Ellis (1987), Crookes (1989), Ortega (1995), Mehnert (1998), Ortega (1999), Yuan and Ellis (2003), Rouhi and Marefet (2006), Mehrang and Rahimpour (2010), Ahangari and Abdi (2011), Abdi, Eslami and Zahedi (2012), and Bagheri and Hamrang (2013), the researcher made the following table (Table 1) by eliciting significant information from them to make them clearer and easier for comparison and understanding.

Table 1

*Previous Studies*

Studies	Task	Theoretical framework	Design	Measurements	Statistical analysis	Results
Ellis 1987	Story-retelling based on the pictures	Attention-based Model	Situation 1: participants write a story based on the given pictures Situation 2: the same participants tell the story based on what they have written Situation 3: the same participants tell a story based on a new set of pictures	Accuracy: SOC (suppliance in obligatory contexts) of copula, regular and irregular past tense	Chi-square	For irregular past tense and copula: speaking was more accurate in pre-task planned situation than within task planned. For irregular past tense, there was no difference among the 3 conditions
Crookes 1989	Describing the construction of Lego model & Giving direction	Attention-based Model	Experimental Group: have 10 minutes to pre-task plan Control Group: within task planning (no time given for pre-task plan)	Accuracy: number of error-free T-Units, target-like use of definite, indefinite articles and plurals Complexity: type-token ratio, words per subordinate clause and utterance	ANOVAs	Pre-task planned speaking is more complex than the non pre-task planned in the short run. But there is no significant difference in accuracy.
Ortega 1995	Story-retelling	Focus on Form	Situation 1: Learners listen to L1 story while seeing the pictures, then they are given 8 minutes to plan the story, finally, they have to retell the story in L2 Situation 2: Learners listen to L1 story while seeing the pictures, but they have to retell the story in L2 immediately after finish listening	Syntactic complexity: propositional complexity Lexical complexity: type-token ratio Grammatical accuracy: article use, subject-verb number agreement, morphology, zero anaphora subject	ANOVAs	Pre-task planned speaking is more complex than the non pre-task planned. There is no remarkable difference in accuracy. As for fluency, it becomes deteriorated in no time planned condition.



				Fluency: self-corrections, repetitions, partial words		
Mehnert 1998	Monologues: leaving messages on friend's answering machine Task 1: direction instruction Task 2: expository of apology and making excuse for not being able to maintain the appointment		Experimental Group 1: have 1 minute to pre-task plan Experimental Group 2: have 5 minutes to pre-task plan Experimental Group 3: have 10 minutes to pre-task plan Control Group: no time for pre-task plan	Fluency: the number of pauses, total pausing time, mean length run, speech rate  Complexity: C-Units, T-Units, dependent clauses  Accuracy: the percentage of error-free clauses, the number of errors per 100 words	ANOVAs & MANOVA	Fluency and complexity can be improved in longer planning time, especially complexity: if given more time to prepare, the learners' oral fluency and complexity can be increased.  Accuracy was enhanced only in 1 minute planning and it was not increased with more planning time. However, there were no significant differences in the planning effects on fluency, complexity and accuracy among the 4 groups.
Ortega 1999	Story retelling based on pictures	Focus on Form	Condition 1: learners in Group A listen to L1 story while seeing the pictures, then they have 10 minutes to prepare retelling the story in L2, after planning, they retell the story in L2 to the learners in Group B Condition 2: learners in Group C listen to L1 story while seeing the pictures, but they have to retell the story to learners in Group D in L2 immediately when the story in L1 ends.	Complexity: Syntactic complexity---simple percentage agreement Lexical complexity---words per utterance and type-token ratio  Accuracy: morphology of noun & its modifier, the Spanish article system	MANOVA & ANOVAs	Pre-task planning produced significantly more fluent and complex narrations in terms of syntax, but no positive effects in lexical range.  There was no much difference in accuracy between the two conditions.

Yuan & Ellis 2003	Picture-based story-telling	Model of Speech Processing	During the procedure, Group A & C can take notes while listening to the story, but not the whole sentences, during the retelling, they cannot use the notes.  No planning condition: Participants started telling the story 30 seconds after studying the pictures and had to finish within 5 minutes. Pre-task planning condition: Participants had 10 minutes to prepare the task and had to finish it within 5 minutes. Within task planning condition: Participants started telling the story 30 seconds after studying the pictures but were given unlimited time to formulate their speech	Fluency: pruned speech rate in syllables per second  Fluency: the number of syllables per minute  Complexity: the ratio of clauses to T-units; the total number of different grammatical verb forms; mean segmental type-token ratio  Accuracy: the percentage of error-free clauses; correct verb forms	One-way ANOVA	For fluency: no significant distinction among the three conditions, just some evidence showing pre-task planned group performed more fluently than the within task planned group. For complexity: pre-task planning had positive effects in grammatical complexity and lexical variety, while within task planning was effective in grammatical complexity. For accuracy: within task planning had positive effect on accuracy than pre-task and no planning conditions, though there were no significant differences.
Rouhi & Marefat 2006	Story telling based on episodes of the cartoon “Tom and Jerry”	Model of Writing	Stage 1: participants watched a 7-minute episode of the cartoon, then they had 10 minutes to prepare retelling the story and had to finish within 5 minutes (pre-task planning-spoken) Stage 2: the same subjects watched the second episode of the same cartoon and started writing the story immediately after it ended and they had to finish it in 12 minutes (within task planning—written)	Fluency: repetitions, false starts, reformulations and replacements  Complexity: the number of clauses per T-units  Accuracy: the number of error-free clauses	t-test & ANOVA	Pre-task planned speaking was more fluent and accurate than that of (within task planned written work) and no planned speaking. There was no much difference in complexity among these three conditions.

			Stage 3: the same participants watched the third episode of the same cartoon. They had to start retelling the story when the episode ended and had to finish within 5 minutes (no planning-spoken)					
Mehrang & Rahimpour (2010)	Story narrating based on the pictures		Condition 1: 32 participants were given 10 minutes to plan before performance and had to complete the task within 2 to 3 minutes.  Condition 2: Another 32 participants were given 30 seconds to plan the story and had to finish the task within 2 to 3 minutes.	Accuracy: error-free T-units  Fluency: the number of words per minute  Complexity: the number of lexical (lexical density)	t-test	Planning either in structured or unstructured task can slightly improve learners' speech accuracy.  The planning effects on fluency and complexity under the two tasks were mixed.  Planning under unstructured task resulted in more complex but less fluent speech.  Planning under structured task resulted in more fluent but less complex speech.		
Ahangari & Abdi (2011)	Decision-making task (monologue)	Limited capacity of L2 processing  Output hypothesis	Experimental group: Participants had 10 minutes to plan the story before the task performance.  Control group: Participants had to perform the task immediately after they received the task.	Complexity: the number of the words per T-unit  Accuracy: errors per T-unit	t-test	Pre-task planning had significant influence on learners' speech complexity. However, there was no remarkable difference in accuracy between the pre-task planned and no time planned speech.		

Abdi, Eslami and Zahedi (2012)	Decision-making task	Output hypothesis	Quasi-experimental Design  Experimental group: Participants had 10 minutes to plan the story in advance before telling it.  Control group: Participants had zero planning time and had to start the task immediately after receiving the task.	Fluency: repetitions, false starts, reformulations and replacements  Accuracy: errors per T-unit	t-test	Learners' speech fluency could be significantly enhanced under 10 minutes' pre-task planning condition.  In terms of speech accuracy, it could be improved under pre-task planning condition, but not significantly.
Bagheri and Hamrang (2013)	Story narrating based on the pictures		Condition 1: Participants under planning condition were given 10 minutes to prepare the story before telling it.  Condition 2: Participants had to begin telling the story 30 seconds after they received the task.	Accuracy: the percentage of error-free clauses, the number of errors per 100 words, and the percentage of correctly used verbs  Complexity: syntactic complexity (the number of T-units)  Syntactic variety (the total number of verb forms)	t-test	L2 learners under pre-task planned condition could significantly outperform those who were under unplanned condition in terms of speech accuracy and complexity.

## 2.4 Gap

The gap in previous studies has been identified on the basis of the review of literature. Previous studies have provided rich insights into planning effects on L2 learners' speaking performance. However, conclusive findings cannot be made due to some limitations in research design in terms of confounding modality of planning, lacking of time limit for task completion and not ensuring the homogeneity of the participants.

In addition, the effect of pre-task planning plus within task planning on L2 written performance has been studied by some researchers. Yet, to the author's knowledge, few studies have explored its planning effects on L2 learners' speaking performance. Thus, whether this type of planning has influences on L2 learners' speaking performance is an area that has not been well-explored so far. Yuan and Ellis (2003) study suggested this type of planning condition in further study to investigate whether it can lessen attention load on working memory and can enhance all aspects of a language in terms of accuracy, complexity and fluency. Moreover, the difference between pre-task planning condition and pre-task planning plus within task planning condition is that there is a time limit or pressure to complete the task in pre-task planning condition. Thus, comparing the results between these two planning conditions may give some insights into the relationship between learners' performance in examination setting and their performance in a non examination setting (normal classroom performance).

Furthermore, few of the previous researches investigated learners' planning process from the perspective of Levelt's (1989) Model of Speech Production, which explains how speaking takes place and where planning occurs during speaking and how planning

can influence speech production, with the exception of Yuan and Ellis (2003). Nevertheless, Yuan and Ellis (2003) theoretically analyzed learners' planning process. They did not collect data to analyze how learners approached the task. Therefore, what learners do while performing the task is a not well-studied area currently. It would be beneficial to know about learners' activities while performing the task such as the time they spend on the task, what they exactly plan, the most difficult thing they face, whether they monitor their speech before and/or while speaking.

The present study attempted to fill the gaps stated above and explored planning effects on learners' speaking performance. Furthermore, learners' planning process was practically analyzed based on the data elicited from their recollections regarding how they approached the task.

## **2.5 Chapter review**

This chapter first demonstrated the theoretical framework and the preceding measurements for analyzing learners' speech accuracy, complexity and fluency. Then researches in the area of planning effects on learners' L2 speaking performance and studies concerning trade-off effects were reviewed. A review of previous researches revealed a gap which this study attempted to address. The review made the current study necessary and beneficial. The succeeding chapter presents the methodology utilized to conduct the current study.

## CHAPTER 3 METHODOLOGY

### 3.0 Chapter overview

The current study aims to know the effects of planning on the oral narratives by undergraduates of non-English majors. To achieve this purpose, participants' speech was analyzed in terms of accuracy, complexity and fluency. Meanwhile, the study explored learners' planning process from the perspective of Levelt's (1989) Model of Speech Production. To examine their process of approaching the task, post-task questionnaire were utilized to collect the data. Their recollections were analyzed first, then matched and compared with Levelt's (1989) Model of Speech Production.

The current chapter begins by describing the criteria of participants' selection. This is followed by a description of the method, instruments used to collect the data, and the measurements to analyze the data.

As mentioned in Chapter One Section 1.4, this study attempts to know how well learners perform in a narrative speaking task under different planning conditions and how they plan. Thus, two main research fields were studied:

- 1) What effects do the different types of planning have on L2 learners' oral production with regard to accuracy, complexity and fluency?
- 2) What can learners recall about how they approached the task? Do learners' recollections about how they approached the task relate to the stages of Levelt's (1989) Model of Speech Production?

To collect the data for these questions, the participants were randomly grouped via Statistical Package for the Social Science (SPSS) Statistics 21 to four types of planning conditions. These planning conditions are discussed in the following section. Then the

speaking task was given to them. Their narrations were recorded for further transcribing and analyzing.

### **3.1 The participants**

The selection of participants was based on such criteria as the students' major, their education level and their English proficiency level on the basis of Malaysian University English Test (MUET).

The participants were non English majors. The main reason why this study concentrated on non-English majors was that there were not enough participants with similar backgrounds among English majors in the same university.

The participants' age ranged from 19 to 21 years old. To insure the homogeneity of the participants, those who traveled abroad or studied abroad or stayed overseas for some time were not included in the current study. Meanwhile, those who had working experience were excluded from the study. The reason for the exclusion is that the exposure to the foreign surroundings and to the working environment might have benefited them in terms of English language proficiency.

These participants have learned English for about 13 years. There was no native speaker of English in these participants' immediate family. They regularly participated in some activities involving them in speaking English, such as presentations. They also have opportunities to speak English outside classroom. Normally, they have to attend English speaking class for 1.5 hours every week.

The participants were freshmen students from the Faculty of Law. These participants were selected for the current study because they had completed the MUET not a long time ago in comparison with sophomore, junior and senior students. Thus,



their English proficiency was considered more homogeneous than students from higher grades. Before enrolling into this university, all these participants completed Sijil Tinggi Persekolahan Malaysia (STPM), a pre-university examination, which was formerly known as Higher School Certificate (HSC). Meanwhile, the MUET was employed as a criterion to select the participants. They are significant for university entrance, especially the MUET. MUET is an English language proficiency test and mainly used for university admissions. This test a prerequisite to apply for the admissions into the public universities in Malaysia. The cut-off band scores are different from course to course in universities.

MUET, as well as STPM is operated by Malaysian Examinations Council. They are considered reliable and valid. The MUET is regarded as the yardstick to measure learners' English proficiency. Moreover, the MUET is the most recent public English proficiency test for the participants before enrolling into university. Thus, it can reflect the participants' recent status in English proficiency.

MUET examines the overall English ability and it does not test learners' specific speech proficiency in terms of accuracy, complexity and fluency, which is a limitation in this study. MUET consists of four components. They are listening, speaking, reading and writing with a maximum score of 45, 45, 120 and 90, respectively. The total score is 300 and is graded into 6 bands. Band 6 represents the highest proficiency and Band 1 indicates the lowest proficiency.

In this study, there was no pre-test to ensure learners' speaking proficiency. The selection of participants was based on the overall score of MUET. For the purpose of this study, Band 4 was employed as the criterion.

Band 4 describes a candidate as a competent user. The candidate who achieves this band is considered having satisfactory, fluent and appropriate language with some inaccuracies. He can comprehend the language and its contexts and can function well in English. Therefore, Band 4 obtainers are regarded as the English users with average proficiency. Those who achieved Band 4 could express or articulate their thoughts well in comparison with those who achieved Band 2 and 3 (Sim, 2010, p. 39).

A total of 124 participants were selected, including 99 female students and 25 male students. The imbalanced gender situation was caused by the lack of availability of participants. Female students were more available than male students at the time of data collecting.

They were randomly assigned to four groups of 31 each, using SPSS software. Each participant performed one speaking task. The gender proportion of each group was as follows: Group 1 consisted of 4 male students and 27 female students. Group 2 consisted of 5 male student and 26 female students. Group 3 consisted of 5 male students and 26 female students. Group 4 consisted of 5 male students and 26 female students.

After grouping the participants, 15 participants in each group were randomly chosen to complete the post-task questionnaire. The ideal size of subjects participating in post-task questionnaire was 93 out of the total 124. However, only 15 to 20 participants in each group were willing to answer the post-task questionnaire because the others claimed that they had to prepare for the coming examinations and had no mood to complete the questionnaire. Thus, to equalize the number of respondents, 15 participants under each planning condition were selected to complete the post-task

questionnaire.

Before data collection, the participants were informed that the study was for research only. All the information and data gathered from them would be treated confidentially and had nothing to do with their academic results. Furthermore, they were informed that they were free to withdraw from the research at any time they wish. Finally, the gender and race were not regarded as variables in the current study.

### 3.2 Design

This research used mixed methodology, more specifically Creswell and Clark's (2007) Triangulation Design (4.1 a), to obtain both quantitative and qualitative data to best understand the research problem, as demonstrated in Figure 2.

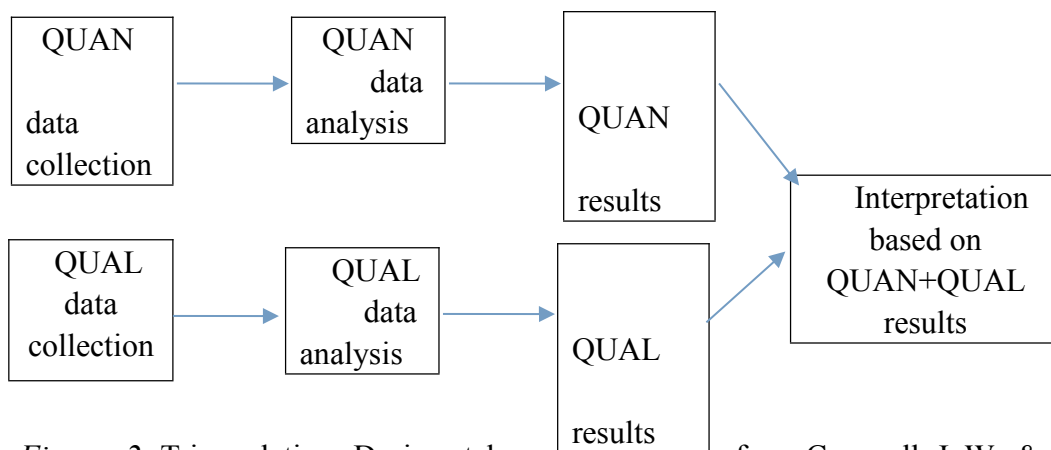


Figure 2 Triangulation Design taken from Creswell, J. W., & Clark, V. L. P. (2007). *Mixed methods research*. California: Sage Publications.

Based on the research design, quantitative data were gathered first, followed by the procedure of qualitative data collection. Then the two sets of data were analyzed separately. After analysis, results of qualitative data were discussed following the discussion of quantitative data. Finally, the results from both sets of data were merged, during which quantitative results were related to qualitative findings.

More specifically, the first three research questions attempted to explore the effects

of different types of planning on L2 learners' speech accuracy, complexity and fluency. To answer them, quantitative data were collected and analyzed. While data collection involved four groups of participants: three experimental groups and one control group. The experimental groups (given time to plan) comprised the pre-task planning group, the within task planning group, and the pre-task planning plus within task planning group. The control group was the no planning group. There were 31 participants in each group, as outlined in Table 2.

Table 2

*Setting of the study*

Non English Majors			
Group 1	Group 2	Group 3	Group 4
Pre-task planning	Within task planning	Pre-task planning Plus within task Planning	No planning
(PTP)	(WTP)	(PTPWTP)	(NP)
Experimental group	Experimental group	Experimental group	Control group
N=31	N=31	N=31	N=31

The last two research questions were concerned with learners' planning process. A post-task questionnaire was employed to elicit the data. The analysis of the data would give an insight into the process of how learners approached the narrative task and interpret quantitative results.

### 3.3 Variables

This study was devised to test whether planning can benefit the quality of L2 learners' oral production. Hence, the effects of different types of planning on L2 learners' speaking performance were examined.

The independent variable was planning condition, which was operationalized at four levels based on the length of planning time and the time of planning occurrence, i.e.

planning before the task performance and during the task performance. The four types of planning conditions included: 1) pre-task planning condition, 2) within task planning condition, 3) pre-task planning plus within task planning condition and 4) no planning condition.

The dependent variables were L2 learners' speaking performance at the aspects of accuracy, complexity and fluency.

### **3.4 The task**

The task of the study was adopted from Yuan and Ellis (2003). It required the participants to narrate a story orally based on a strip of related pictures under four planning conditions --- pre-task planning condition, within task planning condition, pre-task planning plus within task planning condition and no planning condition. Pre-task planning and no planning conditions had to complete the task within a certain time limit.

But this study did not exactly follow Yuan and Ellis' (2003) task instructions. In their study, they gave specific planning instructions only to within task planners. In contrast, the majority of other previous studies gave similar instructions to participants under different planning conditions. Thus, the current study followed the major trend, giving similar and general task instructions to participants under each planning condition to enable them to plan freely. The subsequent part discusses how the time limit was established and the four task conditions.

#### **3.4.1 Pilot study**

The participants for pilot studies were undergraduates. They were freshmen students from the Faculty of Islamic Studies at the same university. They were randomly

chosen based on the MUET band and their willingness to participate. Those who achieved Band 3 were selected because Band 2 and Band 1 students had too much difficulty completing the task and Band 4 students were hardly available in this faculty. Even for Band 3 students, the narrative task was also difficult for them, but unlike Band 2 and Band 1 students, they could complete the task with less difficulty. A total of 20 students were selected and these participants did not participate in the actual data collecting procedure.

#### **3.4.1.1 Setting the time limit for task completion**

The time limit is essential to pre-task planners and no planners in the current study because it is vital to ensure as little within task planning occurrence as possible in the pre-task planning and no planning conditions. A pilot study, based on Yuan and Ellis (2003), was administered to five first year undergraduates, under within task planning condition. The participants were given the same task utilized in the present research. There was no pre-task planning time. Meanwhile, no time limit was set and they were told to take as much time as they needed to finish the task. They were required to narrate at least four sentences of each picture. The time the participants used in the task were recorded.

These participants took 2.12 minutes to 3.34 minutes to complete the task, with a mean of 3.01 minutes. All of the five participants achieved Band 3 in MUET. The participants selected for the main data collection all achieved Band 4. The maximum time these five participants used was probably longer than that used by the participants from Faculty of Law. To ensure that the no planning participants and pre-task planning participants would have adequate time to complete the task, 4 minutes was decided as

the time limit for them to complete the task.

#### **3.4.1.2 Adapting questions in the post-task questionnaire**

Before the actual data collection, another pilot study was conducted to adapt the questions in the post-task questionnaire. A set of questions regarding planning process were prepared on a piece of paper. After the participants finished the above pilot study, the set of questions were sent out to them. They were required to note down what happened before and during their speaking.

Those who attended the first pilot study were asked to complete the questionnaire first. Then another 15 students who also achieved Band 3 in MUET from Islamic Studies were randomly selected: five for pre-task planning condition, five for pre-task planning plus within task planning condition and five for no planning condition. They were asked to complete the task under these three planning conditions first. After finishing the task, these students were asked to complete the questionnaire.

Finally, the answers from these 20 students were analyzed to adjust the questions in the post-task questionnaire. For example, one of the questions in the post-task questionnaire of pre-task planning condition was that “Please recall how you approached the task”. After participants submitted their recollections, the researcher found that the answers they gave did not reflect their thoughts distinctly. Of the five respondents, two mainly recalled what they planned during the 10-minute planning time. One recalled the difficulties she met and how she overcame them while planning during the 10 minutes. One recollected the difficulties he faced while telling the story. One remembered what he was thinking while telling the story. After analyzing these recollections, the researcher found that the recollections each participant gave could not

fully reflect the whole task approach process. Therefore, the researcher gave hints to participants to assist them to recall the task approach process by dividing the task approach process to phases. For instance, your recollections can be based on such phases as your first thought when you received the task. What did you plan during the 10 minutes? What difficulties you met while planning? What were your main thoughts while speaking? What difficulties did you face while speaking in terms of speaking accuracy, complexity and fluency?

### **3.4.2 Setting the pre-task planning time**

The current research employed 10 minutes as pre-task planning time which is based on the research of Skehan (1998).

Skehan (1998) showed that the 10-minute planning time seems optimal in achieving the different aims. He suggested that 1) the planning effect on accuracy appears in the very early stage (1 minute) of planning, i.e., the accuracy is not improved even though more planning time is allotted. 2) 10-minute planning time for complexity appears ideal, and less planning time cannot exert a very strong influence. 3) 10-minute planning time for fluency has a progressively better influence, but when more preparing time is allocated, the increase in effect tends to decrease (p.140).

This 10-minute planning time has been adopted by the majority of researchers in studying the field of L2 learning, particularly in investigating the effects of planning on speaking and written performance, such as Crookes (1989), Mehnert (1998), Ortega (1999), Yuan and Ellis (2003), Ellis and Yuan (2004), Rouhi and Marefat (2006), Ahangari and Abdi (2011), Khorasani, Pandian and Ismail (2012), Nariman-Jahan and Rahimpour (2011), Abdi, Eslami and Zahedi (2012), and Bagheri and Hamrang (2013)



and so forth.

### **3.4.3 Task condition**

In the current study, planning was operationalized at four levels: pre-task planning, within task planning, pre-task planning plus within task planning and no planning. They are discussed in the following part.

#### **3.4.3.1 Pre-task planning (PTP)**

In PTP condition, each participant was given 10 minutes to prepare their speech. No detailed guidance was given on how to plan to enable the participants to plan freely. The 10-minute planning time is similar to studies by Skehan (1998, p. 140) and Yuan and Ellis (2003, p. 11).

During this preparation period, the participants were free to make notes on a blank sheet of paper given. But they were told that the planning notes would be taken away when they began speaking. When the planning time was up, they had to start speaking without referring to their notes. Taking away the notes was to assure that the language elicited by the task was oral (Yuan & Ellis, 2003, p. 11). They had to finish the story within 4 minutes (as the time limit set in the pilot study) to ensure little within task planning. They had to narrate at least four sentences on each picture.

#### **3.4.3.2 Within task planning (WTP)**

In WTP condition, the participants were not given any preparation time in advance. They were not given any detailed guidance for planning. They had to start speaking 30 seconds after studying the received task. But they were not given any time limit to complete the task. They were told to use as much time as they wanted. Similar to pre-task planners, they were required to narrate at least four sentences on each picture.

The time within task planners used was recorded for further analysis and comparison across the four planning conditions.

#### **3.4.3.3 Pre-task planning plus within task planning (PTPWTP)**

This type of planning condition was added in this study based on the suggestion in Yuan and Ellis (2003, p. 23). In their study, PTP had mixed results on learners' speech accuracy. They argued that the main factor may be learners having the opportunity to do WTP when performing the task. Thus, they claimed that there was high possibility that given time to do both PTP and WTP, learners' limited capacity problem would be lessened and they would attend to all aspects of language. They suggested further study to explore its planning effects. Hence, to see if PTPWTP could really reduce the load of learners' limited processing capacity and channeled their attention to all aspects of the language, the current study added on PTPWTP condition to investigate its planning effects on L2 learners' speech accuracy, complexity and fluency.

In PTPWTP condition, each participant was given 10 minutes to prepare their speech. No detailed guidance was given for the planning. During this preparation period, they were free to make notes on a blank sheet of paper given. But they were told that the planning notes would be taken away when they started speaking. When the planning time was up, they had to start speaking without referring to the notes they made previously.

However, unlike the pre-task planners, they were not given any time limit to complete the task. They were told to use as much time as they wanted. They were required to narrate at least four sentences based on each picture. The time participants used were recorded for later analysis and comparison among the four planning

conditions.

#### **3.4.3.4 No planning (NP)**

In this condition, the participants were required to start the task after studying the received pictures and instructions for 30 seconds. They had no time to plan the task before they spoke. In addition, they had to finish the task within 4 minutes as the time set in the pilot study. Thus, in comparison with participants under PTP, WTP and PTPWTP conditions, these participants were restricted from planning (by the time limit to complete the task and not given pre-task planning time) when performing the task. Moreover, they had to narrate at least four sentences on each of the six pictures.

### **3.5 Instruments**

The instruments used for the study comprised of a questionnaire for gathering background information and a set of six related pictures and a post-task questionnaire.

In this study, two questionnaires were utilized. The first questionnaire was used to gather background information. The second questionnaire was employed to elicit information regarding learners' task approaching process. Both were developed by the researcher.

The strip of pictures used in this study was similar to the pictures used by Piri, Barati and Ketabi (2012) in their study on learners' writing. All the participants were told to describe what happened in the pictures with the presence of the researcher.

#### **3.5.1 Questionnaires**

Questionnaires are generally used both in quantitative and qualitative researches. They can be both open-ended and close-ended, or mixed. Close-ended questionnaires can be more specific and the collected data are easier to analyze and are suitable for

statistical analysis. Open-ended questionnaires can obtain more information beyond the responses to the close-ended questions (as cited in Creswell, 2012, p. 220).

Furthermore, questionnaire can be utilized to collect the data which is not easily observable such as the nature of cognitive process and attitudes to certain tasks. They do not lay undue pressure on the participants. What is more, questionnaires are inexpensive and they are also efforts saving. A well-written questionnaire allows efficient data processing (Dornyei, 2003, as cited in Sim, 2010, p. 46).

#### **3.5.1.1 Questionnaire for collecting background information**

Before starting the test, a questionnaire, consisting of close-ended and open-ended questions for the convenience to collect participants' background information, was given to each participant to garner their general information such as their gender, native language, major, age, and so forth. The later part of the questionnaire asked nine questions to identify the learners who had experiences that could affect the results and would be eliminated from the study (See Appendix C).

The first question asked what kind of test the participants took before they enter the university. The second question asked whether they had working experience. Because working experience involving using English can influence learners' speaking performance which may affect the validity of the results. The third question asked how long the participant had learned English. The fourth question asked whether or not they had studied or lived in any English speaking country to identify the learners who had stayed in English speaking countries for an extensive amount of time. The fifth question asked participants if they had traveled to English speaking countries before. The reason is similar to the one stated after the third question. The experiences of traveling in

English countries may involve using English, which might affect the research results. The sixth question asked if participants spoke English outside classroom, if the answer was positive, then how often they spoke in English. The seventh question asked if participants had family members who were native English speakers to exclude the ones who had close contact with a native English speaker. The eighth question asked if learners regularly participated in speaking activities like speech, debate, presentation, etc. to identify those who might have had extensive training in speaking. The last question asked the time for their English lessons given in the aspects of listening, speaking, reading and writing.

#### **3.5.1.2 Post-task questionnaire**

Based on past researches, several methods can be employed to elicit learners' task approach process in investigating planning effects on L2 learners' speaking performance. The commonly utilized ones are interview (e.g. Ortega, 1999) and post-task questionnaire (e.g. Yuan & Ellis, 2003). Think-aloud protocol is an alternative method to elicit learners' planning thoughts on task approach. However, this method is not suitable for the purpose of the current study because "think-aloud procedures were judged to be potentially obtrusive and interfere with the nature of the planning, and thus they were more likely to change the nature of subsequent planned task performance than retrospection" (Ortega, 1999, p. 15). Interview was not selected for retrospective information elicitation in this study for three reasons. First of all, according to Tesch, (1997), the researcher should better be trained to ensure the questions are asked technically, or the interview may result in limited reports. Secondly, "the same researcher-interviewer person is likely to make informants defensive during the

interview” (as cited in Ortega, 1999, p. 32). Thirdly, transcribing and coding the interview data is time consuming for the current study. The author of this study had to transcribe and analyze 144 participants’ stories, which required much time and energy. While every interview lasts approximately 10 minutes (based on Ortega, 1999), which is much longer than every story-telling time. And the ideal sample size for interview in this study is 93 out of 124 participants. Therefore, to avoid the constraints discussed above, the author decided to use open-ended post-task questionnaire instead of think-aloud protocol or interview to collect learners’ thoughts on task approach in this study.

The purpose of retrospective questionnaire was to elicit what learners actually did when approaching the task. It was expected that the immediate retrospection could be practical in generating useful information on how learners allocated their attention resources, yet it had limitations too. One limitation of this post-task information elicitation was that some information may get lost. The other limitation was that there might be more information than that was needed. This study merely elicited the information related to research questions and the rest was not considered.

The post-task questionnaire consisted of a set of questions concerning participants’ planning process (See Appendix D). As stated earlier in the literature review (Section 2.1.1), Levelt’s (1989) Model of Speech Production distinctly explains how speaking takes place and how and where planning occurs during a speech act. Then how learners planned their narrations or how did they approach the task in the current study? Could learners’ task approaching process reflect the stages of Levelt’s (1989) speech production model? To address these problems, the following questions were designed

by the researcher to elicit related information to answer the questions above.

The participants under the four planning conditions were required to answer similar questionnaire with slight difference in the hints. They were asked to reply to two questions regarding their experience in approaching and completing the task. Firstly, they were asked to recall as much information as possible on how they approached the task. Through their recollections, essential information could be elicited to reflect their thinking or planning process. The activities learners experienced while approaching the task were compared and matched with the activities discussed in Levelt's (1989) speech production model to see whether learners actually experienced what Levelt (1989) stated. Secondly, according to Levelt (1989), learners monitor their speech either before speaking or after speaking or both to detect problems. When problems are detected, learners will try to address them and then their speech could be improved. Therefore, in the post-task questionnaire, question regarding whether learners monitored their speech was asked. If they did monitor their speech, when did the monitoring take place, before speaking or after speaking, or both before and after speaking? The answers obtained could deepen the understanding of Levelt's (1989) speech production model. It could explain the planning effects as well. These questions were attached at Appendix D.

### **3.5.2 A set of six related pictures**

According to Wright (1989), pictures are widely utilized for language learning. They can stimulate the students' learning motivation and lead them to be more attentive in class. They can provide information for story-telling and enable the learners to describe them in an objective manner (as cited in Sim, 2010, p. 43).

Meanwhile, picture based story telling was popularly used in L2 researches such as

the ones done by Ortega (1995), Ellis (1987), Ortega (1999), Yuan and Ellis ( 2003), Ellis and Yuan (2004), Mehrang & Rahimpour (2010), and Bagheri and Hamrang (2013), and so forth.

In addition, Ellis and Yuan (2004) stated that previous researches on oral tasks had indicated that picture-based story narrating task could ensure that the task was reasonably demanding on the participants and would stretch their linguistic resources (p. 69).

Furthermore, storytelling based on pictures is not as easy as people think. In accordance with Sim (2010), to concentrate the study on the element of planning in diverse task conditions, picture narrative was not effortless because the storyline in the pictures was not straightforward but had a twist in it (p. 44).

Finally, for the convenience of making comparison with previous studies in related area, a spoken narrative task which is in the form of picture-based storytelling, was used in the current research as a test to collect quantitative data.

The strip of pictures used in this study was adopted from Piri, Barati and Ketabi (2012) who originally adopted the pictures from Heaton (1975). The story was about a boy who got off the bus at night. He accidentally dropped one of the packages right after he got off the bus. But he did not know that and headed home directly. A man getting off the bus right after him picked it up and ran after the boy to return it. The boy saw the man following him in the darkness and was so frightened that he started to run. But the man finally caught up with the boy and returned the package (p. 3).

The general instructions for the task were given in English. All the participants were told to narrate at least four sentences based on each picture describing what



happened in the pictures. The story began with “This evening, John...” (See Appendix B).

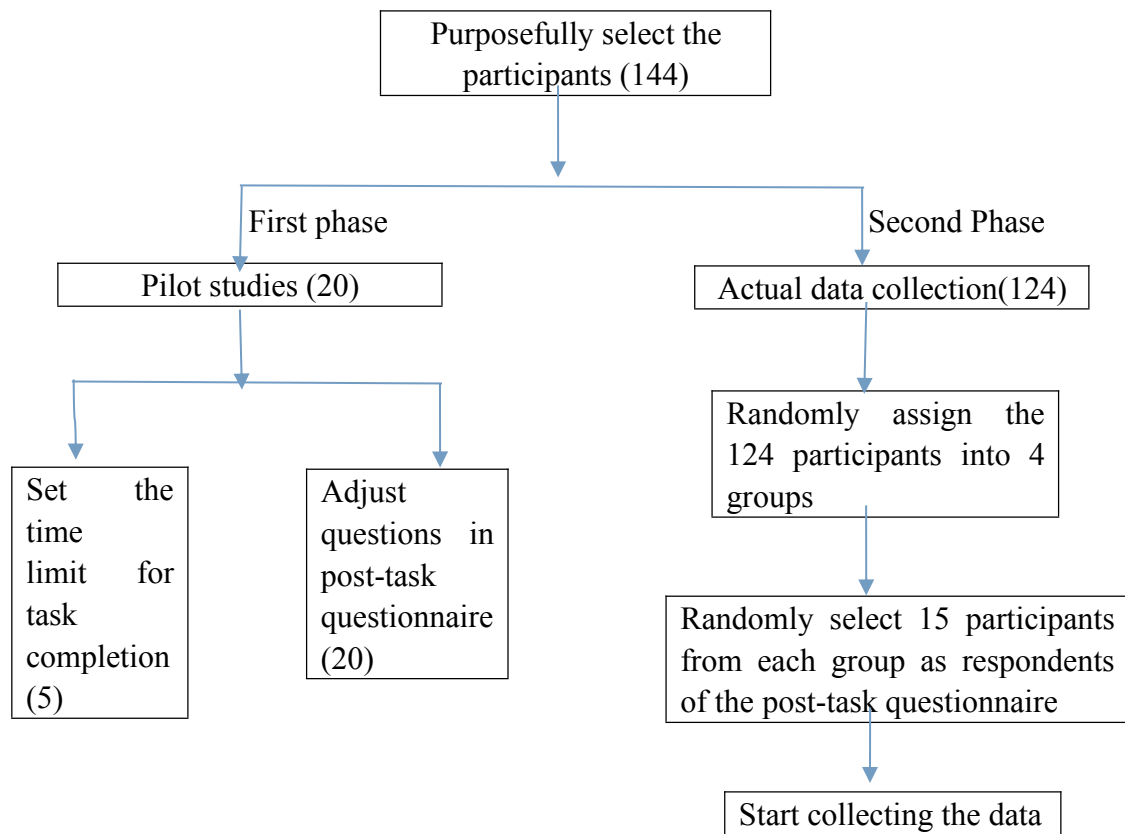
### **3.6 Data collection procedure**

The first step taken before actual data collection was to select the participants. They were selected based on the overall band score of MUET which is a reliable English proficiency examination in Malaysia.

First of all, 20 participants who were undergraduates from the Faculty of Islamic Studies were randomly selected for pilot studies to set the time limit for task completion and for the adjustment of the post-task questionnaire questions. They did not participate in the main data collection procedure.

Then, for the main study, the students who achieved overall Band 4 in MUET were selected. The selection focused on these students because they were considered as competent in English language and they were able to express their thoughts well. A total of 124 students were selected for the current study.

The second step was to group the participants. The selected students (124) were randomly assigned into four groups of 31 each, using SPSS software. Each participant performed one speaking task. After grouping the participants, 15 participants in each group were randomly chosen to complete the post-task questionnaire based on their willingness to answer the questions. The sequence to select and group the participants is provided in Figure 3.



*Figure 3* The flowchart of participant selection and grouping

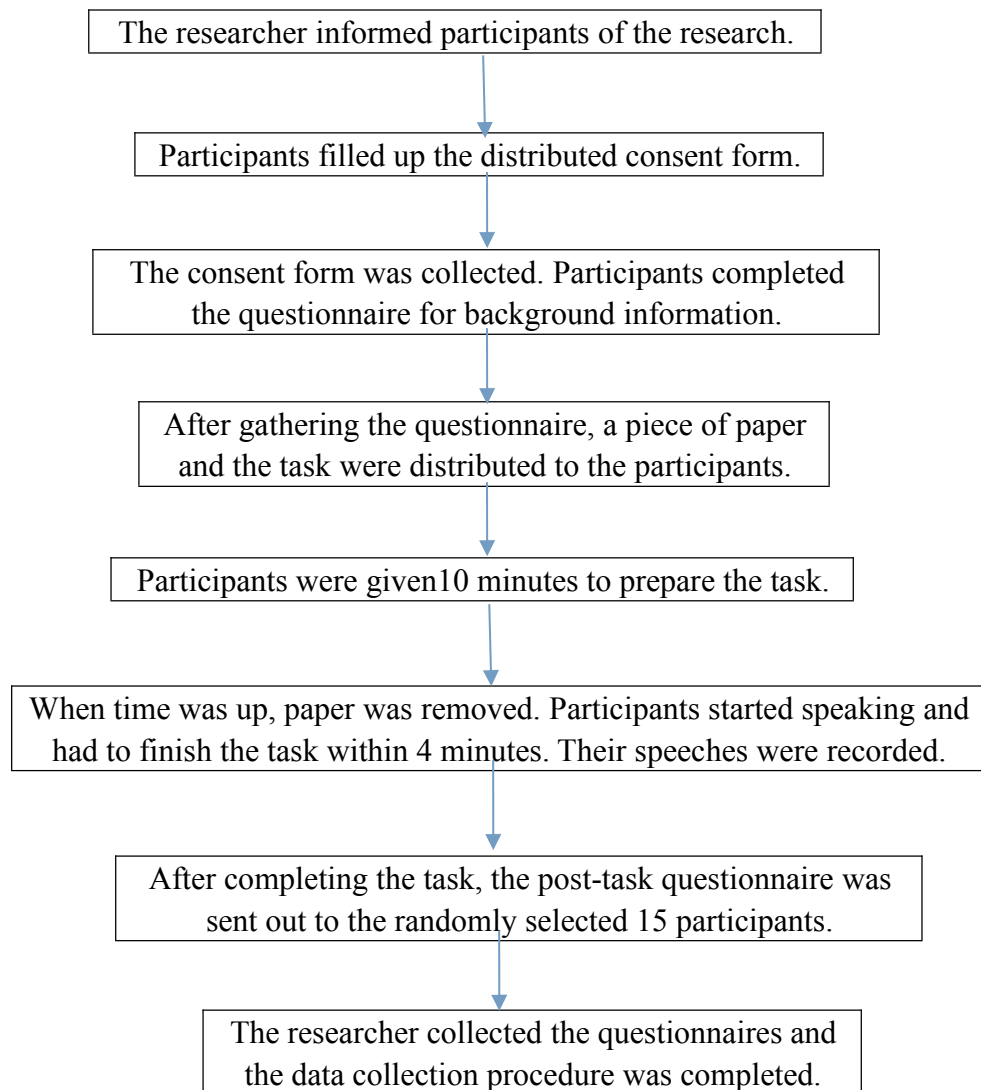
The third step was to collect data. A test was employed to gather the data needed. The task was to narrate a story on the basis of a set of 6 related pictures. The researcher arranged to meet the participants individually in a quiet classroom.

For PTP group: Before the task was conducted, the researcher first informed the participants of relevant information regarding the research. Then, they were given the consent form to sign. When the consent form were completed and gathered, participants were given the questionnaire on background information.

After the completion and collection of questionnaires, the task and a blank sheet of paper were given to the participants. They were told to take 10 minutes to prepare their speech. During the 10 minutes, they could write down the notes on the paper. They were told that when the planning time was up, the planning notes would be taken away, and they had to start speaking. When they were planning and speaking, the researcher was

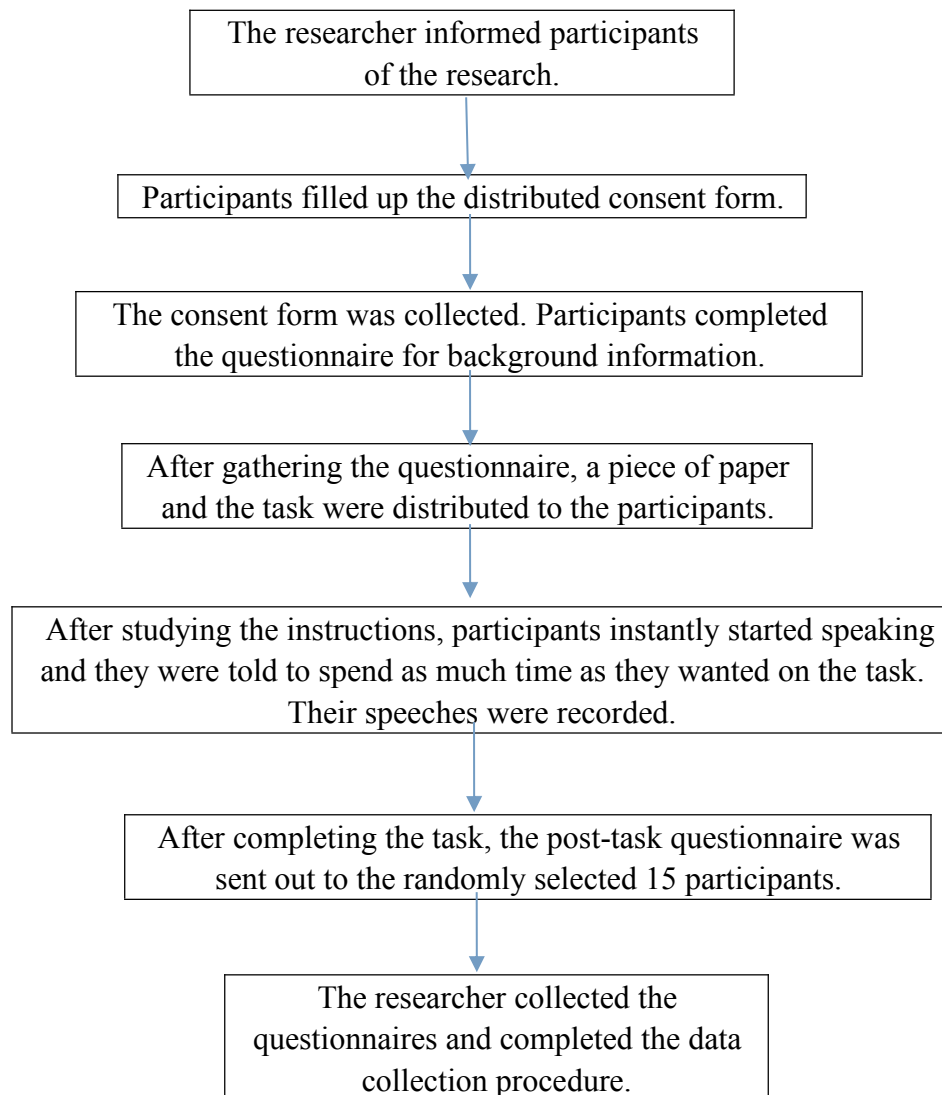
sitting beside them. While speaking, their voice was recorded by Apple MP4 player and Samsung hand-phone for the ensuing transcription and analysis. These two gadgets were utilized simultaneously to avoid the possibility of data loss. They were told to complete the task within 4 minutes.

When they finished speaking, a post-task questionnaire was given to the randomly selected 15 participants (based on their willingness when they were grouped). These participants were required to answer the questions concerning the whole planning and speaking process. When they submitted the questionnaire, the whole data collection procedure was completed. The steps to collect PTP data are shown in Figure 4.



*Figure 4* The flowchart of data collection procedure of PTP group

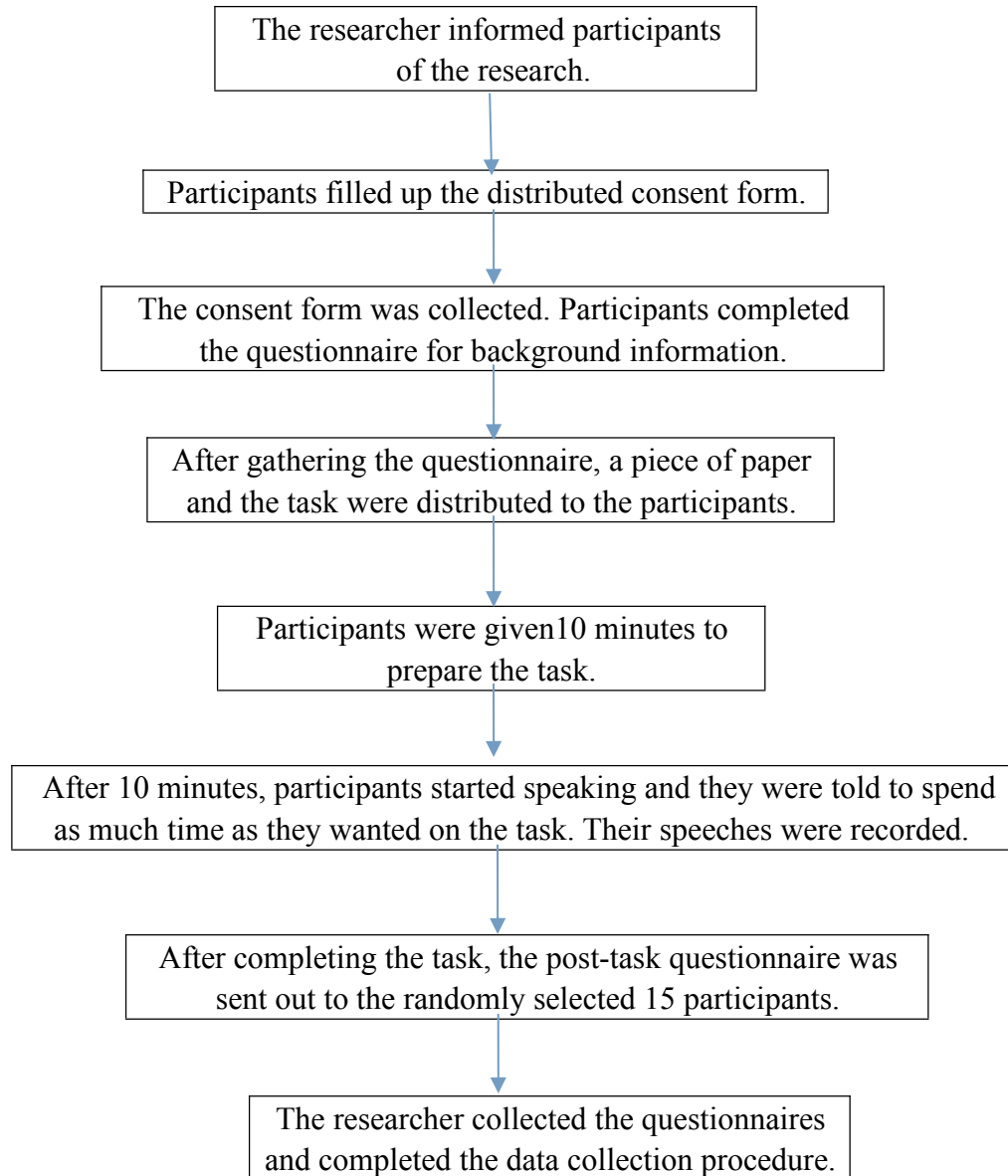
For WTP group, the whole procedure was similar to PTP with two differences. Unlike PTP group, participants in WTP were not given 10 minutes to prepare the speaking task. They were told to start narrating 30 seconds after they received the task. Secondly, the participants in WTP group were not given any time limit to complete the task. They were told to use as much time as they needed. The process to collect data from WTP group is revealed in Figure 5.



*Figure 5* The flowchart of data collection procedure of WTP group

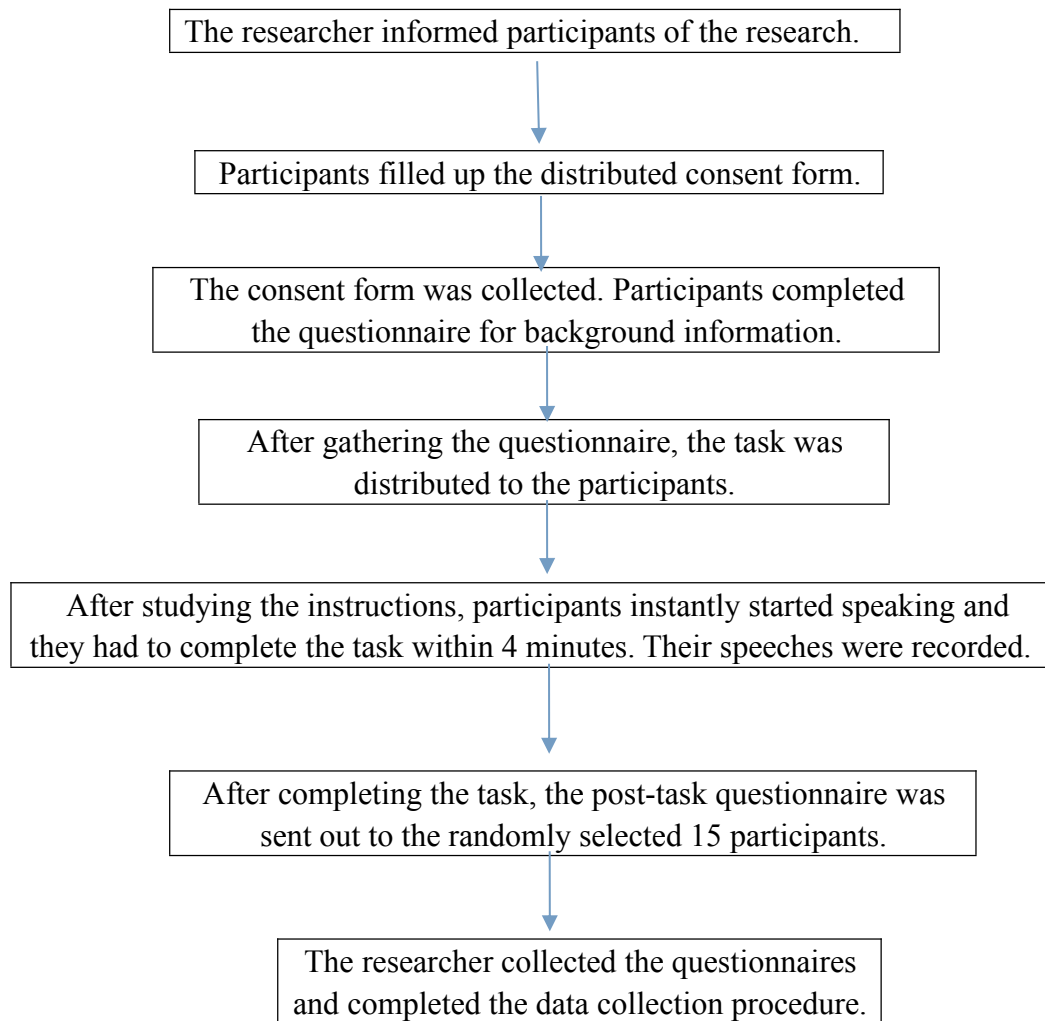
For PTPWTP group, the data collection procedure was also similar to PTP except that the participants in this group were not given time limit to complete the task. They

were told to take as much time as they needed for their narration. The sequence to collect data from PPTPWTP group is displayed in Figure 6.



*Figure 6* The flowchart of data collection procedure of PTPWTP group

For NP group, the general procedure was similar to WTP group. The difference was that the participants in this group had to finish the task within 4 minutes. The procedure to collect data from NP group is demonstrated in Figure 7.



*Figure 7* The flowchart of data collection procedure of NP group

### **3.7 Data analysis**

The data of this research were analyzed both quantitatively and qualitatively. Quantitative analysis was mainly used to measure accuracy, complexity and fluency. The measurements utilized in this study for the three aspects will be discussed in the following section. Qualitative analysis was employed to analyze the questionnaires.

#### **3.7.1 Measures used in the current study**

Different measures of accuracy, complexity and fluency have been used by numerous researchers. They are valid for the purpose of the particular study done. In this study, the independent variable is planning and the dependent variables are accuracy,

complexity and fluency. The measurement for independent variable was adapted from Sim (2010) and Yuan and Ellis (2003). While the measurements for dependent variables were adopted from Ellis and Barkhuizen (2005). These measures have been widely used in previous researches.

### **3.7.1.1 Planning**

Planning was measured by the planning time (the length of time) taken to complete the task by each participant, which was similar to studies conducted by Sim (2010) and Yuan and Ellis (2003).

Based on their studies, this study counted the number of seconds (the length of time) each participant used to complete the task. Then, the mean time participants used was compared across the four different planning conditions.

### **3.7.1.2 Measuring accuracy**

The quality of accuracy was measured by errors per hundred words and percentage of error-free clauses, adopted from Ellis and Barkhuizen (2005, p. 150). According to their definition, errors per hundred words refer to the number of errors divided by the total number of words produced divided by 100. Percentage of error-free clauses refers to the number of error-free clauses divided by the total number of independent clauses, sub-clausal units and subordinate clauses multiplied by 100.

Errors per hundred words and percentage of error-free clauses are widely used measurements of accuracy. For the former, the lower the percentage/number, the higher the accuracy is. For the latter, the higher the percentage, the more accurate the learner's speech is.

### **3.7.1.3 Measuring complexity**

In this research, complexity was examined through grammatical aspect. Measures of the ratio of indefinite to definite articles and the amount of subordination, adopted from Ellis and Barkhuizen (2005, pp. 150-154), were employed.

As they suggested, the ratio of indefinite to definite articles means the total number of indefinite articles divided by the total number of definite articles. The amount of subordination refers to the total number of separate clauses divided by the total number of AS units. In line with Pica, Holliday, Lewis and Morgenthaler (1989), in measuring the ratio of indefinite to definite articles, the higher the proportion is, the more complex the speaking is. This measure is used because it is a specific linguistic feature that occurs in all learners' use of the L2. Moreover, indefinite articles are generally acquired later than definite articles. Thus, a high ratio is indicative of a learner using a more advanced grammatical feature (as cited in Ellis & Barkhuizen, p. 164).

According to Ellis and Barkhuizen (2005), the measurement of subordination on the basis of these units effectively indicates the complexity of intermediate level learners and above (p. 155).

### **3.7.1.4 Measuring fluency**

In the current study, the number of pauses and repetitions, adopted from Ellis and Barkhuizen (2005), were used to examine learners' speech fluency. As they defined, number of pauses refers to the total number of filled and unfilled pauses for each speaker. Repetitions means words, phrases or clauses that are repeated without any modification whatsoever (Ellis & Barkhuizen, 2005, pp. 155-157).

Tajima (2003) defined a pause as silence or fillers for the length of two seconds or



longer after her pilot study on task planning (as cited in Nakakubo, 2011, p. 87). This study adopted Tajima's (2003) measurement in the time length for pause.

The number of filled and unfilled pauses was counted. For the unfilled pauses, when the silence lasted 2 seconds or more, it was counted as a pause. Therefore, the more the pauses are, the less fluent the speech is.

As for repetitions, the researcher counted all the words, phrases or clauses that were repeated without any modification whatsoever, as suggested by Ellis and Barkhuizen (2005, p. 157). More repetition indicates less fluency. The following table summarizes the measurements used in this study.

**Table 3**  
*Measurements for accuracy, complexity and fluency*

Accuracy	Errors per hundred words Percentage of error-free clauses
Complexity	The ratio of indefinite to definite articles The amount of subordination
Fluency	The number of filled and unfilled pauses The total number of repetitions

### **3.7.2 Analyzing post-task questionnaire**

This study also analyzed learners' recollections regarding their process of approaching the task. The findings of the post-task questionnaire may deepen the understanding of the results of planning effects.

The analysis was conducted by relating learners' recollections to Levelt's (1989) Model of Speech Production. The unit of qualitative analysis in the current study could be words, phrases and sentences. When processing respondents' recollections, their recalls in the form of words, phrases or sentences were elicited first and then analyzed.

To be more specific, first of all, learners' recollections were elicited for crucial

information or activities regarding each phase in approaching the task. Secondly, based on Levelt's (1989) speech production model, the activities learners experienced during speech production process were listed. Finally, the information elicited was matched with the listed activities. Then how learners approached the task and whether their process of approaching the task was related to Levelt's (1989) speech production model may be distinctly demonstrated. Table 14 reveals how learners' recollections regarding task approach were analyzed and matched to Levelt's (1989) speech production model.

Table 4

*Examples of learners' recollections and stages of Levelt's (1989) Model of Speech Production*

Stages	Activities learners experience during each stage	Examples of recollections
Conceptualization	Conceiving an intention, selecting information to be expressed, determining what to say and how to say it, monitoring the speaker's own productions, etc. (Harley, 2008, p. 398).	Respondent A: First, I looked at the <b>plot of the story</b> and try to understand it. Then I began to talk in <b>constructing the story line</b> .
Formulation	Selecting words, making phrases with the words selected, constructing the sentences, turning words into sounds, etc. (Harley, 2008, p.398).	Respondent B <b>Construct complex sentences</b> to describe the flow and try to <b>use better and advanced words</b> to make the story interesting.
Articulation	Executing the product from formulation	.....

According to this table, when the respondent was thinking about the **plot of the story** or **constructing the story line**, then he was mainly at the first stage of Levelt's (1989) Model of Speech Production, the conceptualization stage. When the respondent was considering the **construct** of **complex sentences** or/and the **use of better and advanced words**, then he was chiefly focused on the second stage of Levelt's (1989)

Model of Speech Production, the formulation stage. When the respondent was thinking of both **the story line** and the **construct of complex sentences** or the **use of better and advanced words**, then he was at both the conceptualization stage and the formulation stage.

### **3.8 Chapter review**

This chapter outlined the type of data collected, the procedures for collecting the data and how the data were analyzed in the present study. In the subsequent chapter, learners' transcriptions in terms of speech accuracy, complexity and fluency were analyzed using the measurements discussed in the current chapter to examine the planning effects on learners' speaking performance.

## CHAPTER 4 RESULTS OF PLANNING EFFECTS

### 4.0 Chapter overview

This chapter presents the results regarding the first three research questions stated in Chapter One. A test, a strip of pictures, and questionnaires were used to collect both quantitative and qualitative data. After collecting, transcribing and analyzing the data, statistical analysis one way Anova was used to compare the results across the four groups. The alpha for achieving statistical significance was set at .05.

Of all data from the four types of planning conditions, one narration under the WTP condition was too short. It contained only five sentences. One participant from NP group did not complete the task. One participant under PTP condition spent 4:02 minutes narrating the story. One participant's narration under the PTPWTP condition was deemed invalid because it could not be heard distinctly. Thus, these four participants' stories were not analyzed.

### 4.1 Results of independent variable

The independent variable was planning time which was operationalized at four levels based on when planning took place. The time participants spent on the task under each planning condition was analyzed and compared. The results are shown in Table 5.

Table 5

*Statistics related to independent variable*

Means					F- value	Sig.	Locations of significance		
Length of time	NP	WTP	PTP	PTPWTP			NP vs WTP	NP vs PTP	NP vs TPWTP
Sec.	127	176	168	182	5.355	.002	.009	.020	.005

p < .05

According to this table, participants under WTP condition employed 176 seconds to complete the narrative task on average. Participants under NP condition spent 127

seconds on the task. The mean time participants used under PTP condition was 168 seconds. The mean time spent on the task by PTPWTP participants was 182 seconds. PTPWTP participants spent the longest time on the task while NP participants took the shortest time to complete the task.

Besides, there is significant difference in the usage of time across the four planning conditions ( $p = .002$ ). The significant difference is displayed via the Post Hoc Test. Based on Table 5, it is obvious that the time participants under NP condition spent on the task is significantly shorter than that used by the participants under WTP, PTP and PTPWTP conditions ( $p = .009$ ,  $p = .020$ , and  $p = .005$ , respectively). However, there is no significant difference in the time participants used across WTP, PTP and PTPWTP conditions.

## **4.2 Results of dependent variables**

### **4.2.1 Accuracy**

Accuracy is defined as the extent to which the target language is well-produced according to its rule system (Skehan, 1996b, as cited in Ellis & Barkhuizen, 2005, p. 139).

As discussed in Chapter 3 Section 3.7.1.2, the measurements used to examine learners' speech accuracy were percentage of error-free clauses and errors per hundred words. With regard to the percentage of error-free clauses, the higher the percentage, the more accurate the speech. In terms of errors per hundred words, the higher the rate, the less accurate the speech (Ellis & Barkhuizen, 2005). The following section detailed the results of these two measurements on learners' speech accuracy.

#### 4.2.1.1 Percentage of error-free clauses

For percentage of error-free clauses, participants under PTPWTP condition achieved the highest mean (.50). Those, who were under NP condition, obtained the lowest mean which accounted for .33. WTP participants garnered a slightly higher mean (.37) than NP participants. PTP participants achieved a slightly lower mean (.48) than PTPWTP (.50) participants. Detailed statistics are displayed in Table 6.

Table 6

*Statistics related to percentage of error-free clauses*

	Means				F-value	Sig.	Location of significance
Percentage of error-free clause	NP	WTP	PTP	PTPWTP	3.430	.022	NP vs PTPWTP
Accuracy	.33	.37	.48	.50			.047
p < .05							

As stated earlier in this section, higher rate indicates more accurate speech. Thus, PTP and PTPWTP participants produced much more accurate speech than WTP and NP participants.

Table 6 reveals a large F statistic ( $F = 3.430$ ). Therefore, there is significant difference ( $p = .022$ ) among the four planning conditions in participants' speech accuracy. On the basis of the Post Hoc Test, the significant difference exists between NP condition and PTPWTP condition ( $p = .047$ ). This difference is reflected in the mean percentage of error-free clauses (NP = .33 and PTPWTP = .50, separately). The results between either two planning conditions (with the exception of NP condition and PTPWTP condition) does not demonstrate any significant difference in accuracy in terms of percentage of error-free clauses.

#### 4.2.1.2 Errors per hundred words

Participants under NP condition made the highest number of errors per hundred words (.39). Those who were under WTP condition made the second highest number (.35) and PTP speakers made the third highest number (.29). The PTPWTP speakers made the lowest number (.24). Table 7 illustrates the statistics regarding errors per hundred words.

Table 7

*Statistics related to errors per hundred words*

	Means				F-value	Sig.
Errors per hundred words	NP	WTP	PTP	PTPWTP	1.634	.215
Accuracy	.39	.35	.29	.24		

$p < .05$

The higher number in errors per 100 words indicates lower speech accuracy. Thus, while telling the story, participants under NP condition achieved the lowest speech accuracy, followed by those under WTP conditions. Participants, who were under PTP condition, achieved a much higher accuracy than those under the WTP and NP conditions. Those who were under PTPWTP condition achieved the highest speech accuracy. Hence, participants' speeches under planning conditions were more accurate than those who were under NP condition in general.

One way Anova ( $p = .215$ ) demonstrates no significant difference in errors per 100 words across the four planning conditions. Therefore, the difference in planning effects on learners' speech accuracy in terms of errors per 100 words does not reach statistical significance.

To conclude, PTP, WTP and PTPWTP can generally benefit learners' speech

accuracy in terms of the percentage of error-free clauses and errors per hundred words. PTPWTP condition contributes most to learners' speech accuracy. It can significantly enhance learners' speech accuracy in terms of error-free clauses.

#### 4.2.2 Complexity

According to Ellis and Barkhuizen (2005), complexity is how well learners can generate elaborated language and can refer to the learner's preparedness to use a wide range of different structures (p. 139).

In this study, complexity was measured by the ratio of indefinite to definite articles and the amount of subordination. According to Ellis and Barkhuizen (2005), of these two measurements, the higher the ratio, the more complex the speech. The following part demonstrates the detailed information of planning effects on learners' speech complexity.

##### 4.2.2.1 The ratio of indefinite to definite articles

The results of the ratio of indefinite to definite articles are demonstrated in Table 8.

Table 8

*Statistics related to the ratio of indefinite to definite articles*

	Means				F- value	Sig.
The ratio of indefinite to definite articles	NP	WTP	PTP	PTPWTP	1.494	.224
Complexity	.41	.46	.62	.63		

$p < .05$

In line with the table, participants under PTP and PTPWTP conditions achieved much higher rate (.62 and .63 respectively) than those under WTP and NP conditions (.46 and .41, separately). PTPWTP planners obtained the highest percentage and NP planners garnered lowest rate.



The higher rate implies the more complex speech. Therefore, PTPWTP participants achieved highest speech complexity, followed by PTP participants. Those who were under WTP achieved much lower speech complexity than PTPWTP and PTP participants. Participants who were under NP condition achieved the lowest speech complexity. One way Anova illustrates that there is no significant difference ( $p = .224$ ) across the four conditions with regard to the ratio of indefinite to definite articles.

#### 4.2.2.2 The amount of subordination

As displayed in Table 9, PTPWTP participants achieved highest number (2.77), followed by PTP participants (2.72). WTP participants got the third highest number (2.59). Those, who were under NP condition, got the lowest number (2.44).

Table 9

*Statistics related to the amount of subordination*

	Means				F-value	Sig
	NP	WTP	PTP	PTPWTP		
The amount of subordination					1.344	.267
Complexity	2.44	2.59	2.72	2.77		

$p < .05$

Higher amount of subordination reflects more complex speech. Hence, participants under planning conditions generally performed better than those who were under NP condition. More specifically, PTPWTP participants generated the most complex speech, followed by those who were under PTP condition and then WTP participants. Those who were under NP condition produced the least complex speech.

The F statistic (1.344) in one way Anova shows that there is no significant difference ( $p = .267$ ) in participants' speech complexity concerning the amount of subordination across the four planning conditions.

To sum up, the current study shows that all types of planning can contribute to learners' speech complexity with regard to the ratio of indefinite to definite articles and the amount of subordination. However, there is no significant difference in effects of four types of planning on learners' speech complexity.

### 4.2.3 Fluency

Fluency is the production of language in reality without excessive pausing or hesitation (Ellis & Barkhuizen, 2005, p. 139). Fluency, in the current study, was measured by the number of filled and unfilled pauses and repetitions. In line with Ellis and Barkhuizen (2005), the higher the number of pauses or repetition, the less fluent the speech. The following section presents the findings on learners' speech fluency.

#### 4.2.3.1 The number of filled and unfilled pauses

Participants under WTP condition made the largest number pauses (21.44). Participants who were under NP and PTPWTP conditions produced the second largest number of pauses (14.44 and 14.39, respectively). Those, who were under PTP condition, generated the smallest number of pauses (6.11). Table 10 presents the results of filled and unfilled pauses.

Table 10

*Statistics related to the number of filled and unfilled pauses*

	Means				F-value	Sig.	Locations of significance		
	NP	WTP	PTP	PTPWTP			PTP vs NP	PTP vs WTP	PTP vs PTPWTP
The number of filled and unfilled pauses	14.44	21.44	6.11	14.39	10.632	.000	.018	.000	.019
Fluency									

p < .05

As stated, the larger the number of pauses a participant gets, the less fluent his

speech is. Therefore, participants who were under WTP condition achieved the lowest fluency. Those who were under PTP condition achieved the highest fluency. As for those who were under NP and PTPWTP conditions, their speech fluency was similar to each other (14.44 and 14.39, respectively). These participants' speech fluency was somewhere between that of WTP participants and PTP participants.

The large number F (10.632) statistics in one way Anova reveals the significant difference lying in participants' speech fluency across the four planning conditions. The Post Hoc Test details the significant differences between WTP speakers and PTP speakers ( $p = .000$ ), between NP speakers and PTP speakers ( $p = .018$ ), and between PTPWTP speakers and PTP speakers ( $p = .019$ ). In other words, PTP participants' speech is significantly more fluent than those from NP, WTP and PTPWTP conditions. There is much difference in speech fluency across NP, WTP and PTPWTP conditions but the difference is not statistically significant.

#### 4.2.3.2 The total number of repetitions

As shown in Table 11, participants under NP condition scored the highest mean (5.11), followed by those from WTP condition (3.72). Participants from PTP and PTPWTP conditions obtained close mean (2.28 and 2.67, respectively). The mean repetitions PTPWTP participants got was slightly higher than that of PTP participants.

Table 11

*Statistics related to the total number of repetitions*

	Means				F-value	Sig.	Locations of significance	
	NP	WTP	PTP	PTPWTP			NP vs PTP	NP vs PTPWTP
The total number of repetitions					5.872	.001		
Fluency	5.11	3.72	2.28	2.67			.002	.008

$p < .05$

As discussed, higher number of repetitions implies lower speech fluency. Therefore, PTP participants achieved the highest speech fluency, followed by those who were under PTPWTP condition. The participants under WTP condition can be considered less fluent compared to the previous two groups. Those under NP condition repeated most times, hence, their speech fluency was the lowest among the four planning conditions.

One way Anova shows that significant difference ( $p = .001$ ) exists in the total number of repetitions across the four planning conditions. The Post Hoc Test details where the significant difference exactly lies. According to the table, there is significant distinction in the number of repetitions between PTP and NP conditions ( $p = .002$ ) and between NP and PTPWTP conditions ( $p = .008$ ). Based on the mean repetitions, the PTP and PTPWTP speakers achieved significantly more fluent speech than NP speakers.

To conclude, planning can positively affect learners' speech fluency in terms of filled and unfilled pauses and repetitions, except for WTP condition in filled and unfilled pauses. Learners' speech fluency under WTP condition actually deteriorates. PTPWTP can significantly benefit learners' speech fluency as shown by the number of pauses. Additionally, PTP can significantly contribute to learners' speech fluency in both measurements.

### **4.3 Chapter review**

This chapter demonstrated the results of planning effects on L2 learners' speaking performance. More specifically, it presented the effects of different types of planning on adult L2 learners' speech accuracy, complexity and fluency. The following chapter will discuss and rationalize these planning effects.

## **CHAPTER 5 DISCUSSION ON PLANNING EFFECTS**

### **5.0 Chapter overview**

This study aimed to investigate the different effects of PTP, WTP, PTPWTP and NP have on the accuracy, complexity and fluency of Malaysian English learners' monologic oral production in a narrative task. The different effects of planning on learners' speech accuracy, complexity and fluency in this study and in previous studies will be compared and discussed in the following section.

### **5.1 The time used to complete the task**

In this study, participants under NP condition used the shortest time to complete the task across the four planning conditions. Those who were under PTPWTP condition spent the longest time on the task. Participants under WTP and PTP conditions used longer time than those who were under NP condition, but relatively shorter than those who were under PTPWTP condition.

In addition, there is significant difference in the time used between participants under planning conditions and participants under NP condition. Participants under NP conditions used significantly shorter time than those who were under WTP, PTP and PTPWTP conditions. However, there is no significant difference in the time used by participants cross WTP, PTP and PTPWTP conditions.

In Yuan and Ellis' (2003) study, there was also significant difference in time taken by participants to complete the narrative task across planning conditions. In their research, the mean time taken by WTP participants was 243.6 seconds which was the longest time used by participants across all conditions. This was quite similar with the current study when PTPWTP condition was not included in the comparison. In their

study, the mean time used by NP and PTP speakers was 189.3 seconds and 186.4 seconds, respectively. The time WTP participants took was much longer than that used by NP or PTP speakers.

In this study, PTP participants used much longer time than NP participants, while in their study participants from these two planning conditions used almost similar amount of time to complete the task. Moreover, in general, the time participants used in this study is much shorter than the time participants used in Yuan and Ellis' (2003) study.

## **5.2 Planning effects on accuracy**

The results of the two measurements show that planning (PTP, PTPWTP and WTP) can benefit participants' speech accuracy. In terms of the percentage of error-free clauses, participants under PTP and PTPWTP conditions produced much more accurate speech than those under NP condition. Moreover, there is significant difference between the effects of PTPWTP and NP on learners' speech accuracy. With regard to errors per 100 words, participants under any type of planning conditions can generate more accurate speech than those who were under NP condition, particularly, PTPWTP and PTP conditions. However, there is no significant difference in planning effects on learners' speech accuracy across the four types of planning with regard to errors per 100 words.

Findings demonstrate that learners' speech accuracy can be improved through any types of planning: WTP, PTP and PTPWTP. However, for the two measurements (percentage of error-free clauses and errors per 100 words), the difference of planning effects does not reach statistical significance, except for PTPWTP condition in the case

of percentage of error-free clauses.

The findings can be explained by what Skehan (1998) referred as the dual-mode system. According to Skehan (1998), “the operation of rule-based system results in a heavy processing burden during the ongoing language use which needs more detailed attention and more time than lexically stored knowledge (the exemplar-based system) during comprehension and production” (p. 89).

Based on this and Levelt’s (1989) speech production model, it can be inferred that WTP generated more accurate speech than NP probably because the former had unlimited time to access the rule-based knowledge when speaking. For the PTP condition, participants had a time limit to complete the task, but they were given 10 minutes to prepare their speaking in advance. During that period of time, they could access the rule-based knowledge. The situation is more evident in PTPWTP, as it provides both PTP time and unlimited time to complete the task.

In short, planning conditions had either PTP time or WTP time or both to access the rule-based knowledge. However, NP condition had two disadvantages: the immediacy of the task and the time limit for task completion. Thus, under NP condition, learners had much less time to operate the rule-based system, which resulted in producing less accurate speech than those from planning conditions.

When comparing the results of the current study with those of previous studies in terms of accuracy, the present results support the findings of most of previous researches, with the exception of Yuan and Ellis (2003). Previous studies, such as Crookes (1989), Ellis (1987), Ortega (1995 & 1999), Mehnert (1998), Rouhi and Marefat’s (2006), Mehrang and Rahimpour (2010), Abdi, Eslami and Zahedi (2012),

Ahangari and Abdi's (2011) and Bagheri and Hamrang (2013), revealed that planning can contribute to learners' speech accuracy, especially PTP. It can benefit more to learners' speech accuracy than WTP. Bagheri and Hamrang (2013) found that learners' speech accuracy under PTP condition were significantly more accurate than those who were under non PTP condition.

Across all the studies above, including the present study, planning, especially PTP can benefit learners' speech accuracy more. However, the finding of Yuan and Ellis' (2003) study in learners' speech accuracy differs from that of either the current study, or of other studies discussed above. In Yuan and Ellis' (2003) study, both within task planned speech and pre-task planned speech were more accurate than no planned speech. Nevertheless, WTP, rather than PTP, contributed more to learners' speech accuracy. In other words, within task planned speech was significantly more accurate than no planned speech.

### **5.3 Planning effects on complexity**

The results obtained from the two complexity measurements (the ratio of indefinite to definite articles and the amount of subordination) reveal that planning can positively affect learners' speech complexity; even though the differences are not statistically significant. In terms of both measurements, participants under PTPWTP condition produced the most complex speech, followed by those who were under PTP condition. WTP participants generated less complex speech than PTP participants, but WTP participants' speech was more complex than that of NP participants.

The reason why PTP group can yield more complex speech has been proposed by Yuan and Ellis (2003). In line with their rationale, when learners have time to do PTP,



most of them will develop propositional plans. To encode those propositional plans, learners have to access the rule-based system (the grammar), which could result in greater speech complexity (p. 26). Furthermore, according to Skehan's (1998) dual-mode system, "the operation of the rule-based system needs more detailed attention and time than the lexically stored knowledge". WTP and NP groups had 30 seconds to prepare their speech. The immediacy of the task resulted in little time for them to pre-plan thoroughly. But WTP group still could produce slightly higher complex speech because they had unlimited time to operate the rule-based system and during this period they could plan their language. On the other hand, PTP and PTPWTP groups had the opportunity to access the rule-based system and prepare thoroughly before speaking, thus they generated more complex speech than NP and WTP groups. Furthermore, PTPWTP group had another advantage: unlimited time to complete the task. That was why they could generate more complex speech than those who were under PTP condition.

Comparing the results obtained from the present study and those from previous studies in terms of speech complexity, the present results agree with the findings of most of previous studies, except for the study by Yuan and Ellis (2003).

Ellis' (1987) study did not explore planning effects on learners' speech complexity. Other studies such as Crookes (1989), Mehnert (1998), Ortega (1995 & 1999), Mehrang and Rahimpour (2010), Ahangari and Abdi's (2011), and Bagheri and Hamrang (2013) showed that planning, specifically, pre-task planning, can boost learners' speech complexity. In Ortega (1999), Ahangari and Abdi (2011) and Bagheri and Hamrang's (2013) studies, significant differences existed in speech complexity between PTP

condition and non PTP conditions.

In Yuan and Ellis' (2003) study, in terms of syntactical complexity, both pre-task planners and within task planners significantly outperformed the no time planners. However, PTP planners resulted in the same complexity as WTP planners. With regard to lexical variety, pre-task planners and no time planners could speak more complex language than within time planners. Meanwhile, pre-task planned speech was significantly more complex than that of within task planned. In terms of syntactic variety, the results pre-task planners achieved were the same as those by within task planners.

The findings of this study in terms of speech complexity echo the results of the past studies, with the exception of Yuan and Ellis (2003). In Yuan and Ellis (2003) study, within task planners could achieve similar or almost similar speech complexity as pre-task planners did. In other words, WTP could contribute to learners' speech complexity as well as PTP does. However, in other studies, the situation is entirely reversed. Generally, PTP can contribute more to learners' speech complexity than WTP.

#### **5.4 Planning effects on fluency**

The results of the total number of filled and unfilled pauses imply that PTP can significantly enhance learners' speech fluency. In the case of the total number of repetitions, PTPWTP and PTP can significantly boost learners' speech fluency. One interesting finding is that the speech yielded by participants from WTP condition was less fluent than that by NP participants in filled and unfilled pauses.

The deterioration in fluency under WTP condition is probably because NP group had to complete the task within a time limit, but WTP group could take as much time as

they wanted which resulted in less time pressure. To fulfill the requirement of the task, NP group had no much time to think as WTP group did. They had to plan and speak fast, which led to more fluent speech. The same situation happened to PTPWTP group. They had 10 minutes to prepare their speech, but the unlimited time allowed them to think carefully like WTP participants did. Hence, PTPWTP group obtained slightly higher fluency than NP group, but much higher fluency than WTP group.

For both PTP and NP groups, there was time limit for task completion. This time limit may urge the participants to speak faster. But for PTP group, they had 10 minutes to prepare for the content, and/or language, or both, for their speech. Therefore, they could achieve much greater fluency than NP group.

With regard to repetitions, WTP, PTP and PTPWTP groups generated more fluent speech than NP group. The results also show that participants can significantly profit from PTP and PTPWTP conditions.

In a word, all types of planning contribute to participants' speech fluency in comparison with NP, except for WTP in terms of the number of filled and unfilled pauses. Moreover, PTP and PTPWTP can significantly enhance participants' speech fluency.

PTP and PTPWTP conditions can significantly contribute to learners' speaking fluency probably due to the relatively adequate time for planning in advance. During PTP and PTPWTP, participants had ample opportunity to process the speech planning for both content/organization and the formation of the language. This period of preparation would lessen the pressure of real-time speaking, which could result in their fewer pauses and repetitions to achieve more fluent speech.

However, for NP or WTP participants, the immediacy of the task pushed them to plan their speech instantly. This was stressing to them, especially to NP participants owing to the time limit. Under this pressure, NP participants tended to edit and correct their speech more frequently than WTP participants, as the latter had unlimited time to conceptualize and formulate their speech.

Poulisse (1997) concluded that learners' L2 proficiency was less complete than their L1 proficiency (as cited in Guerrero, 2004, p. 40). Thus, planning, especially PTP may compensate for the devoid of L2 proficiency where fluency is concerned. This may be one explanation that why PTP can significantly improve learners' speech fluency in this study. Additionally, the researcher found that PTP and PTPWTP participants seemed more confident and less anxious than those from NP and WTP, which may affect their speech fluency, too.

The findings regarding fluency in this study are in consistent the findings of most previous studies.

Ellis (1987) did not investigate the effects of planning on learners speech fluency, nor did Crookes (1989), or Ahangari and Abdi (2011). Studies by Ortega (1995), Ortega (1999), Mehnert's (1998), Rouhi and Marefat's (2006), and Abdi, Eslami and Zahedi (2012) found that learners' speech under PTP condition was more fluent than those under WTP condition or NP condition.

All of the reviewed previous studies and the current study demonstrate that planning can contribute to learners' speech fluency, which are somewhat different from Mehrang and Rahimpour (2010) in terms of the unstructured task and Yuan and Ellis (2003) study, or at least to a certain extent. In Mehrang and Rahimpour (2010), the

planning effects on L2 learners' speech fluency were mixed under different tasks. Yuan and Ellis (2003) study measured learners' speech fluency in number of syllables per minute and number of meaningful syllables per minute. They found that in both cases, pre-task planned speech was more fluent than that of within task planned speech or no time planned speech. Moreover, within task planned speech was less fluent than that of no planned in terms of both measurements. The current study found that in filled and unfilled pauses, within task planned speech was also less fluent than no time planned speech, which is in consistent with Yuan and Ellis (2003); although the two studies utilized different fluency measurements. Nevertheless, this study found that in terms of repetitions, WTP condition can benefit learners' speech fluency when compared with NP condition.

### **5.5 Comparison of planning effects between the present study and that of Yuan and Ellis (2003)**

The above sections have compared the findings regarding the effects of different planning conditions on L2 learners' speech accuracy, complexity and fluency between this study and previous studies. This section will discuss the findings between the current study and Yuan and Ellis' (2003) study again because the results obtained by these two studies are different which needed rationalizing separately.

This study finds that PTP can contribute more to learners' speech accuracy, complexity and fluency than WTP, which supports the results of most previous studies, but Yuan and Ellis (2003). In their research, WTP could contribute more to learners' speech accuracy and grammatical complexity than PTP. The current study adopted their narrative task, yet obtained different findings. The differences may be caused by factors

such as the different measures for accuracy and complexity, learners' different levels of English proficiency, specific task instructions and so forth.

There is a possibility that different measurements and learners' different English proficiency level might have caused the different results. But this possibility ought not to be significant because the measurements utilized in this study are also different from other previous studies, and participants' English language proficiency may also be different from those in previous studies, yet similar results with theirs can be obtained. As for the specific task instructions, it can be a vital factor that causes the great differences in planning effects.

In accordance with Skehan (1998), "the effects of planning can be channeled through instructions, so that the accuracy and complexity maybe influenced selectively" (p. 167). It can be inferred that during speaking performance, learners' speech accuracy and complexity can be affected due to the task instructions.

This could be the main reason why the present study obtains different results from that of Yuan and Ellis (2003). In their study, the task instruction for WTP participants was different from that of the present study. In their study, they instructed the WTP participants with detailed instruction to encourage careful within task planning. For example, "If you think you say something not correct or not to your satisfaction, you can correct it as many times as you can". This specific instruction only appeared in WTP condition, and it did not appear in NP or PTP conditions in their study. Therefore, during the process of speaking, there is a possibility that within task planners channeled their attention resources on the accuracy and/or complexity to make improvements.

The channeled effects can be seen from their research results of fluency. As within

task planners were instructed to correct whatever they have said if they wanted, the speech rate of within task planners was much lower than NP and PTP speakers in both of the measurements (number of syllables per minute and number of meaningful syllables per minute). More specifically, as Yuan and Ellis (2003) reported, when performing the task, the WTP group spoke the slowest and reformulated or repeated the most while the PTP group spoke fastest and reformulated the least. In terms of number of meaningful syllables per minute, WTP group produced much lower speech rate than no planning group and statistically significant lower speech rate than PTP group. These findings demonstrated that within task speakers in Yuan and Ellis (2003) study actually followed the instructions and planned careful when speaking.

Nevertheless, the current study did not apply the instructions for WTP as in Yuan and Ellis (2003). Instead, the present study followed most of the previous studies (which did not channel instructions to any specific area) and gave general and similar instructions to each group.

## **5.6 Trade-off effects**

There is a common phenomenon reported by previous studies that, owing to the limited attentional resources, L2 learners especially those with limited proficiency, generally assign a priority to one aspect of the language when performing a task in real time. Take previous findings for example, some learners prioritize accuracy over others. Some prefer allocating their attention to complexity, while others give priority to fluency. This phenomenon would be more obvious when giving the opportunity to plan the performance for the task (Wendel, 1997; Yuan & Ellis, 2003).

As stated earlier in literature review (Section 2.1.4), trade-off effects have been

observed by researchers, yet there are some disagreements on the aspects learners actually trade off. Skehan and Foster (1997) found the trade-off effects between complexity and accuracy. They noticed that when learners achieved significantly higher complexity in the actual task performance, their accuracy suffered. When they achieved significantly higher accuracy, their complexity reduced.

Wendel (1997) proposed that the trade-off effects involved accuracy and fluency. Giving learners opportunity to plan in advance could predispose learners' attention to fluency. They would produce most fluent speech at the expense of lower accuracy. Wendel suggested that if learners had the opportunity to plan moment-by-moment, their high accuracy would be achieved and fluency would have to pay a price.

Yuan and Ellis (2003) observed two types of trade-off effects in the aspects of L2 learners' language performance. The first trade-off effects, involving accuracy and fluency, echoed the finding of Wendel (1997). Yuan and Ellis (2003) reported that WTP learners had adequate time to formulate their speech, thus they achieved highest in accuracy, but their fluency was the lowest. Another trade-off effects Yuan and Ellis (2003) reported was the one between grammatical accuracy and lexical variety. They found that PTP group generated much richer vocabulary but less accuracy in grammar than WTP group. WTP group produced greater grammatical accuracy but less lexical variety than PTP group.

Skehan (1998) claimed that during task performance, different aspects of a language have to compete for attention resources due to limited processing capacity because learners normally have difficulty attending to all of them. This is particularly true for L2 learners with limited proficiency. Thus they prioritize one aspect over the



others. The aspect they attend to could be boosted and the others would remain unchanged or become even worse. While performing the real task, “giving opportunities to prepare in advance would predispose learners to concentrate upon organizing and encoding propositional content which could result in greater fluency” (Wendel, 1997).

In the present study, PTP group significantly outperformed NP group in fluency, however, in terms of accuracy and complexity, there were no significant differences. Therefore, based on Skehan (1998) and Wendel (1997), it could be explained that under PTP condition learners prioritized fluency over accuracy and complexity. In other words, learners traded planning effects between fluency and accuracy/complexity.

To summarize, the trade-off effects between fluency and accuracy/complexity are also observed in the current study, which echo the findings in Wendel (1997) and the first trade-off effects in Yuan and Ellis (2003).

## **5.7 Chapter review**

This chapter discussed the effects of different types of planning on L2 learners’ speech accuracy, complexity and fluency. Then findings in this study were compared with previous studies. Finally, the chapter rationalized the effects of different types planning on different aspect of a language via trade-off effects. The next chapter will reveal and discuss the results of post-task questionnaire to deepen the understanding of planning effects and how learners approached the narrative task as well.

## **CHAPTER 6 RESULTS AND DISCUSSION OF POST-TASK QUESTIONNAIRE**

### **6.0 Chapter overview**

This chapter reports and discusses learners' recollections about how they approached the narrative task and whether their recollections relate to Levelt's (1989) Model of Speech Production.

The data elicited by the post-task questionnaire may not fully reflect learners' thoughts concerning how they approached the task. In other words, learners may not be able to accurately recall their thinking process during the task performance. In addition, learners actually recalled more information regarding how they approached the task. However, when analyzing their recollections, this study only elicited the information related to Levelt's (1989) Model of Speech Production and the rest of the information was not considered.

Data from post-task questionnaire were analyzed and compared. The responses were first analyzed separately in terms of different planning conditions, i.e., PTP, WTP, PTPWTP and NP. Then the data were compared and summarized across the four planning conditions.

In this study, as stated in Chapter 3 (Section 3.1), the actual size of subjects participating in post-task questionnaire should be 93 out of the total 124. However, only 15 to 20 participants in each group were available to answer the post-task questionnaire. Therefore, to even out the number of respondents in each group, the researcher decided to ask 15 participants in each group to recall their thoughts about how they approached the task.

## **6.1 Results and discussion of PTP questionnaire**

### **6.1.1 Respondents' recollections about their approach to the task under PTP condition**

The first question relates to how participants approached the narrative task. Thus they first recalled how they reacted when they first looked at the strip of pictures.

After going through all the respondents' recollections, the researcher found that two respondents out of the 15 thought that they had not told stories in English for a long time. Three respondents thought about the requirements of the task. For example, how they could tell the story using at least four sentences describing each picture. The rest thought of something related to the story line, the organization of the story, or the linkage between pictures. Here are the examples taken from the respondents' responses.

#### **Example 1: Respondent 1**

“When I first looked at the pictures, I was thinking that I has being long time do not telling a story in English.”

#### **Example 2: Respondent 2**

“When I received that task, I found it was a full flow of the story in 6 pictures and how simple it is if doesn't *[sic]* need to comply the requirements.”

#### **Example 3: Respondent 3**

“I was thinking of the linkage of the pictures when I first looked at them, what should the story be like?”

Then they recalled how they planned the story. As stated earlier in Chapter 3 Section 3.7.2 on analyzing qualitative data, information of each respondent's recollection was elicited. Then the activities learners experienced at each stage of

Levelt's (1989) speech production model were listed. During Levelt's (1989) first stage, conceptualization, a speaker experiences some mental activities like conceiving an intention, selecting related information to be expressed, and determining what they are going to say and how they are going to say it. During this stage, the speaker also monitors his own productions. In the formulation stage, speakers encode the product that conceptualization generates which involves translating conceptual chunks (the product of conceptualization) into linguistic forms. During the process of formulation, they are carefully thinking of selecting proper words or phrases, putting the words or phrases into sentences and turning words into sounds in proper sequence, speed and appropriate prosody.

Finally, the information elicited from the respondents' recollections was matched with the activities listed above. Connecting the respondents' planning activities before speaking with Levelt's (1989) speech production model, it could be found that when respondents pondered the information conveyed by the set of pictures or what they could tell from the pictures and how they could tell the stories or make the stories more amazing, they actually conceptualized. As all these activities take place in the conceptualization stage of Levelt's (1989) Model of Speech Production. When respondents reported that they mainly thought about the selection of appropriate words or phrase and the construction of sentences, or the proper verb tense in the story, they, in fact, formulated the language or at the second stage of Levelt's (1989) Model of Speech Production. When respondents reported that they thought about both aspects of the above, they were actually at both the conceptualization stage and the formulation stage. Through matching, whether or not their recollections were related to Levelt's (1989)

speech production model and if related, which stage respondents were at would be distinct.

The following samples were taken from some respondents' recollections regarding how they prepared the story during the 10-minute preparation time.

Example 4: Respondent 4

"I looked at the whole pictures first to understand what the story is about. After that, I tried to figure out **the storyline** so that it corresponded with the pictures."

Example 5: Respondent 5

"First I go through the pictures thinking the correct **tense** for the story. Then I search my memories for **better words** and how to **construct the sentences**."

Example 6: Respondent 6

"Trying to understand the pictures and think the **logical flow of story** with the aid of those pictures. After that, try to think some **advanced words** to **make** a few **sentences** by looking at those pictures."

Here, Respondent 4 thought about **the storyline**, thus he was mainly at the conceptualization stage. Respondent 5 considered **the tense, better words, construct the sentences**, therefore, he was chiefly at the formulation stage. Respondent 6 thought of **the logical flow of the story, advanced words and make sentences**, hence, he concentrated on both the conceptualization stage and the formulation stage.

After analyzing the 15 respondents' recollections of what they did during the 10-minute planning time, the researcher found that seven respondents mostly pondered the information conveyed by each picture or what they could tell from the pictures and how they could tell the stories or make the stories more interesting. One

respondent primarily thought about appropriate words, phrases, the construction of sentences, and the correct verb tense to describe what happened in the pictures. While the rest seven respondents considered both of the aspects discussed above.

Therefore, of the 15 respondents, seven were mainly at the first stage - the conceptualization stage. Only one respondent was chiefly at the second stage - the formulation stage. The rest seven respondents were at both the conceptualization stage and the formulation stage.

During planning process, respondents reported the difficulties they met. The reported difficulties differed from respondent to respondent. The elicited information showed that six respondents found organizing of the story or how to tell the story the hardest. Eight respondents considered choosing proper lexis or selecting appropriate verb tense the most difficult. While one respondent counted the requirement of the task 'telling at least four sentences on each picture' was the most troublesome. The following are the examples of the difficulties participants reported in the post-task questionnaire.

Example 7: Respondent 7

"When I was planning, I found it difficult to organize the line or linkage of story. It was not easy to make up sentences to link the pictures together."

Example 8: Respondent 5

"While planning I found to figure out the proper word in providing the effective information to portray what I saw in these pictures was very difficult to me because feel lack of vocabulary and I am afraid of grammar mistake."

Example 9: Respondent 2

"I can tell the story using one sentence for each picture. But the task need for

sentences, which was so hard to prepare.”

In recalling story telling process, the information related to Levelt’s (1989) Model of Speech Production was elicited and compared. The analysis of the 15 respondents’ recollections demonstrated that seven respondents of the total 15 chiefly took the story line or the organization of the story into account. They thought about what they were going to tell and how they could tell it. One respondent mainly thought of the usage of the language, for instance, grammar. The rest of the seven respondents took both the language and the story line or the organization of the story into consideration. Relating this story telling process to Levelt’s (1989) Model of Speech Production, seven respondents chiefly conceptualized the organization of the story. One respondent primarily formulated the story. Seven respondents basically did both and they were at both the conceptualization stage and the formulation stage. See the following examples from some respondents’ recollections.

Example 10: Respondent 10

“During the telling process, I was more thinking about **the content** and try to let **the outline of the story** make sense.”

Example 11: Respondent 5

“**Construct complex sentences** to describe the flow and try to **use better and advanced words** to make the story interesting.”

Example 12: Respondent 12

“When telling the story, firstly I was still **thinking the story line** that can match the pictures even I planned before. Then I tried to **use simple words** so that it can be understood better. Not only that, simple words make it easier for me to tell the story.”

While speaking, respondents reported the most difficult aspects of a language they faced in terms of speech accuracy, complexity and fluency. The analysis of all the recollections displayed that three out of the 15 respondents had difficulty using elaborated language. They believed speech complexity was the biggest obstacle to them while telling the story. Five respondents considered avoiding making grammatical mistakes the most difficult. The rest seven respondents stated speaking fluently was their prior consideration and it was also the most troublesome one to them while telling the story. The difficult aspects respondents mentioned are displayed in the following examples.

Example 13: Respondent 13

“During the story telling process, I was most worried about the grammar mistakes. I was thinking maybe I **make so many mistakes** and the data collecting person will laugh at me.”

Example 14: Respondent 14

“I found it so **hard to use complex sentences** or better words. So **I just use simple words and short sentences** to make the story easy to be understood. This is also easy for me to tell it.”

Example 15: Respondent 5

“Even I planned the story before, when the time for me to tell it, I am still thinking of the construct of sentences. So I thought I can’t **tell the story fluently**.”

### **6.1.2 Self-speech monitoring under PTP condition**

The second question concerned the self-speech monitoring before and/or after speaking. As discussed in Chapter Two Section 2.1.1, self-speech monitoring does



happen during a speech act according to Levelt (1989). During the speaking procedure, a speaker normally monitors what he intends to say, and/or what he has said. This speech monitoring can explain such phenomena as pauses, all types of hesitation, and self-correction occurred during a speech act.

According to Levelt (1989), speech monitoring can help learners detect problems before and/or after they speak. When the problems are detected, speakers will try to address the problems. This can result in more accurate and/or complex speech. Thus, there is a possibility that those who monitor more could detect more problems and adjust their internal or external speech more, which will lead to more accurate and/ or complex speech.

Based on the data elicited from respondents' post-task questionnaire, of the 15 respondents under PTP condition, up to eight respondents monitored their speech before speaking. Three of them monitored their speech after speaking. Four respondents monitored their speech both before and after speaking.

## **6.2 Results and discussion of WTP questionnaire**

### **6.2.1 Respondents' recollections about their approach to the task under WTP condition**

Under WTP condition, respondents reported that when first looked at the pictures, 13 out of the 15 respondents thought about the story line or the linkage of the set of pictures. For example, Respondent 1 stated that "I was trying to **link the pictures** to see what story the pictures trying to convey." One of them, i.e., Respondent 2, considered the moral values based on the set of pictures: "I was thinking about the pictures somehow trying to **portray some moral values** on our experiences in life." One of the

15 respondents (Respondent 3) related what happened in the pictures to the reality, “I was thinking is this a **true story** happened **in our present society**?”

While telling the story, two of the 15 respondents mainly thought about what happened in the pictures, how to link the information in the pictures or how to organize the story line. Ten of them chiefly considered the appropriate language to be used such as selecting lexis, avoiding making mistakes, the correct tense to be used and so forth. Three of them took both the organization of the story line, the content of the story and the language into consideration.

According to Levelt’s (1989) the first stage of speech production model, during conceptualization, speakers experience micro- and macro-planning during which they select information to be expressed, determining what to say and how to say it. During formulation stage, learners undergo processes like lexical planning (selecting words and phrases) and syntactic planning (constructing sentences). The articulation stage involves executing the product of formulation.

Thus, matching what respondents reported with learners’ activities in Levelt’s (1989) speech production model, it is obvious that under WTP condition two respondents mainly focused on the conceptualization stage. Take the response of Respondent 1 for example, “I was thinking about the descriptions appropriate to be used in **laying out the storyline**, as well as **linking the pictures**.” Ten out of the 15 respondents mainly centered on the speech formulation stage. Respondent 5 stated that “I was mainly thinking of **what words to be used** to describe the story.” The rest three respondents concentrated on both the conceptualization stage and the formulation stage. For example, Respondent 6, “The main thing in my mind was the **outline of the story**

and whatever it talked with the pictures. My second thought was on **the selection of appropriate words** and using **the correct verbs and tense**.”

During the process of speaking, respondents reported the most difficult aspect they faced. Three out of the 15 respondents thought telling a fluent story was the hardest. They felt that it was troublesome to maintain speech fluency because when speaking they had to consider the link between the pictures, or the story line, or the grammar and so forth. They had to pause to think about all those mentioned above. Hence, they could not tell the story fluently. For instance, Respondent 1 recalled that “When I was talking I was trying **not to hesitate** between sentences. But it was so hard, because I need to stop and think about the linkage between pictures.”

Ten of the 15 respondents considered speech accuracy as the most difficult aspect to face because they found it hard to avoid grammatical mistakes when speaking. Take the recollection of Respondent 8 as an example, “I was worried about the tense. I **was afraid to make mistakes**. So I tried to use simple sentence just to **make sure what I said was correct**. And other people can understand my story.”

Two respondents thought it hard to use elaborated language, or to use subordinate clause. They stated that they actually tried to employ complex sentences to make the story sound advanced. For example, Respondent 9, “I was thinking of using **long sentences with clauses**. Then my story was better than others’, but it was so difficult due to my not well-learned grammar. I think I should study English really hard.”

### **6.2.2 Self-speech monitoring under WTP condition**

The second question was about self-speech monitoring before and/or after speaking. As discussed in the previous section, self-speech monitoring happens before

speaking, and/or after speaking. Through monitoring, learners can detect and solve problems before and/or after they speak, which can result in better speech production. Thus, learners' speech is likely to be more accurate and complex if they do monitoring before and/or after speaking (Levelt, 1989).

Based on the data elicited from respondents' retrospection, under WTP condition, the respondents who monitored their speech accounted for 11 before speaking. One respondent monitored their speech after speaking. Additionally, two respondents monitored their speech both before and after speaking and only one respondent reported that she never monitored her speech during the whole story telling process.

### **6.3 Results and discussion of PTPWTP questionnaire**

#### **6.3.1 Respondents' recollections about their approach to the task under PTPWTP condition**

Respondents first described what came to their mind when they first received the task. On the basis of their description, 14 respondents from a total of 15 thought about the story line or the organization of the story. For example, Respondent 1 recalled that "I was thinking **how to come up with the story and describe the idea** in the pictures because most pictures require higher creative thinking." Only one respondent, i.e., Respondent 2, considered the requirement of the task, which was how to use at least four sentences describing each picture. She felt it uneasy to fulfill the request of the task: "When I was reading the task instruction, I found that I have to use four sentences to tell the story. **It was hard to create four sentences for each picture**, as the pictures seem easy to describe by one or two sentences."

Then in the procedure of preparing the story, ten out of the 15 respondents

considered what they could tell based on the pictures or how they could organize and tell the story to make the story more attractive. One of them thought about the language in terms of selecting the proper tense, or vocabulary to make up correct sentences and so forth. The rest four respondents took both of the above into consideration.

Relating their thoughts with Levelt's (1989) three stages of Model of Speech Production, ten out of the 15 respondents mainly concentrated on the first stage of speech production --- the conceptualization stage. An example is taken from Respondent 1, "First of all, I focused on each of the pictures to get an idea of **what is the story may revolve about**. I started **planning the main idea** from the series of pictures." One respondent mainly focused on the second stage of speech production --- the formulation stage. Take the response from Respondent 4 for example, "I mainly **construct the words and sentences** and **think about the grammar point**, then list them down." The rest four respondents centered on both the first stage and the second stage, i.e., both the conceptualization stage and the formulation stage. For instance, Respondent 5 recollected that "First, I tried to understand information each picture given. Then I tried to **form connection between those pictures**. Once I managed to **relate those pictures**, I tried to **form sentences** to describe those pictures."

When preparing for speaking, one of the requirements of the task, telling the story using at least four sentences for each picture, was the hardest for four respondents. They felt stressed owing to this requirement. For example, Respondent 6 said that "When I first received the task, I thought I [*sic*] was an easy task. However, when I preparing them, I found it so difficult to create four sentences to describe every picture. It needs much imagination." The story line, or the content, or the organization of the story was

the most difficult for six respondents. For example, Respondent 7 stated that “I spent all the time to relate all the pictures to organize the story line because it was very difficult for me to connect storyline well between pictures.” Finding the right words to be utilized or constructing the words into proper sentences or the selection of correct tense was the primary difficulty to five respondents. The response from Respondent 4 is taken as an example, “I realized that finding the right words to be used and how to construct them in a proper sentence was very difficult because of my poor grammar.”

While telling the story, seven in 15 respondents thought about the story line or the content/the organization of the story. Three in 15 considered the lexis and phrases or how to make up correct and appropriate sentences avoiding errors. The rest five respondents took both of these two aspects into consideration.

Connecting this to Levelt’s (1989) speech production model, under PTPWTP condition, seven of the respondents localized their attention mostly on the conceptualization stage. For instance, Respondent 9 reported that “**My mind was all about the content.** I was trying to look for things in the pictures to assist me in linking the story to think of what I can tell.” Three of the respondents focused chiefly on the formulation stage. For example, Respondent 4 wrote that “Most of the time, **my thinking process is the language itself**---speak correctly with complete sentences.” Five of the respondents concentrated upon the conceptualization stage and the formulation stage as well. An example is taken from Respondent 11, “While telling the story, I am **thinking about the storyline** that I planned. Besides, I try to **construct sentences with proper grammar/vocabulary** in order to tell the story smoothly.”

When they were telling the story, six of the 15 respondents claimed telling the

stories without errors as the biggest challenge. For example, Respondent 4 said that “During my speaking time, using the correct grammar and sometimes the right vocabulary was so difficult to me because I have bad grammar and small vocabulary.” Five of them considered speaking fluently without any hesitation or stops as the biggest problem because while speaking they could not avoid pauses or repetitions. For instance, Respondent 13 recollected that “I was having a hard time trying to tell the story without any pauses or hesitation.” Four of the respondents believed that it was the hardest thing for them to utilize elaborated language, thus speaking complex language was the most problematic for them. Take the report from Respondent 14 as an example, “I want to make my story look good. So I was finding the fancy words to construct the sentences with other clauses but I felt so hard because I felt some pressure. I never did this exercise before.”

### **6.3.2 Self-speech monitoring under PTPWTP condition**

As for the question regarding self-speech monitoring, just as the discussion in the above sections, it occurs during a speech act and it can assist learners to generate more accurate and complex speech.

Based on the data elicited from the respondents’ post-task questionnaire, seven out of the 15 respondents monitored their speech before speaking and up to three respondents monitored their speech after speaking. The rest five respondents monitored their speech both before and after speaking.

## **6.4 Results and discussion of NP questionnaire**

### **6.4.1 Respondents’ recollections about their approach to task under NP condition**

Respondents presented that when they were first looking at the pictures, 14

respondents in 15 focused their thoughts on how to organize and tell the story clearly. They thought about the linkage between pictures and the information the pictures conveyed. For example, Respondent 1 wrote that “When I received the task, I was thinking of the ideas in each picture and how to relate all the ideas together to make up a story.” Only one respondent, i.e., Respondent 2, felt confused about the pictures at first, then he tried to link the pictures and extract information from the pictures: “I am confused when seeing the pictures because the story line was not clear. Then I looked at the pictures again and more carefully. Finally, with much difficulty, I was able to tell the story.”

When telling the story, five respondents recalled that their thoughts were mainly about the story line or the content and organization of the story. They considered what to tell based on the pictures. Two respondents chiefly pondered the selection of proper or advanced words or sentences, or how to avoid grammatical errors. Eight of the respondents actually took both aspects into consideration.

Relating their thought in speaking process with Levelt’s (1989) Model of Speech Production, it is distinct that under no time planning condition, five of the 15 respondents mainly concerned the conceptualization of the story. For example, Respondent 2 recalled that “My mind was mainly focused on **the continuity of the story**. I was thinking how to **link the pictures** together to **make the story well organized**.” Two of them mainly concerned the formulation stage. Take the report from Respondent 4 as an example, “I am **thinking of the grammar** in the sentences which I am going to speak.” Eight respondents considered both conceptualization and formulation stages. An example is taken from Respondent 5, “First, I tried to **draw the**



**outline of a story** from the pictures. Then I started to **find advanced words to construct more sentences** and make the story sound more interesting.”

In the case of the most difficult aspect for them while telling the story in terms of speech accuracy, complexity and fluency, six respondents counted the most difficult aspect as telling the story without any errors. For example, Respondent 6 recollected that “While telling the story, I met a big problem which is to construct the meaningful sentences with minimal grammatical errors.” They stated that they tried hard to avoid mistakes while speaking. Five respondents believed using elaborated language to narrate the story was the hardest part. For instance, Respondent 4 said that “I planned to use clauses to make the story look more advanced; however, it was so difficult to me as I cannot think freely. I have to complete the story in 4 minutes.” Four respondents considered telling the story fluently the hardest. Take the response from Respondent 5 as an example, “I couldn’t help pausing to think about what I am going to say. It is so hard to tell the story without hesitation because I do not have time to prepare for my story.”

#### **6.4.2 Self-speech monitoring under NP condition**

With regard to the question of self-speech monitoring, in accordance with Levelt (1989), self-speech monitoring, before and/or after speaking, can facilitate learners to produce better speaking performance because through monitoring learners can detect and address the problems.

In line with the data elicited from respondents’ post-task questionnaire, under NP condition, seven out of the 15 respondents monitored their speech before narrating the story. Three respondents monitored their speech after telling the story. Only one

respondent monitored his speech both before and after speaking. Four respondents claimed that they never monitored their speech while speaking.

### **6.5 Comparison and compilation of the results of four sets of questionnaire**

The above section discussed how learners approached the given task based on the four types of post task questionnaire separately. In the following section, the results of the four types of questionnaires will be compared and compiled to make the learners' process of approaching the task more distinct.

When the respondents first received the task, the majority of them considered the story line and how to organize the story across the four planning conditions. Moreover, the fulfillment of the task request was also the consideration for respondents under PTP and PTPWTP conditions. One respondent under WTP condition thought about the moral values of the story and one participant who was also under WTP condition related what happened in the pictures with the reality. Only one respondent from NP condition felt confused about the pictures at first. He could not figure out what the pictures were telling at the first glance.

During the whole 10 minutes preparation for PTP condition and PTPWTP condition, the participants concentrated upon different stages of a speech act according to Levelt's (1989) Model of Speech Production. Under both conditions, most respondents concentrated chiefly on the conceptualization of the story rather than the formulation of language. The difference between these two planning conditions was that under PTP condition the number of respondents who mainly focused on story conceptualization was similar to the one who focused on both story conceptualization and language formulation. However, under PTPWTP condition, the number of

respondents who concentrated mainly on story conceptualization was 2.5 times as many as those who focused primarily on both story conceptualization and language formulation. The main focus of respondents when they were planning the task is outlined in Table 12.

**Table 12**  
*Main focus while planning the story*

Focus	PTP	PTPWTP
Conceptualization	7	10
Formulation	1	1
Conceptualization and formulation	7	4

Under these two planning conditions, organizing the outline and content of the story was the number one difficulty reported by respondents. Selecting proper words and constructing the correct sentences or deciding/ maintaining the right tense was the second hardest aspect. The requirement of narrating at least four sentences for each picture of the task became the third biggest problem. Only one respondent under PTP condition regarded anxiety as his biggest problem to be overcome and this problem was never reported by respondents under PTPWTP condition.

While narrating the story, respondents under different planning conditions had different focuses in terms of the stages in Levelt's (1989) speech production model. The following table illustrates the main focus of participants while they were speaking.

**Table 13**  
*The main focus of participants while speaking*

Concentration	PTP	WTP	PTPWTP	NP
Conceptualization	7	2	7	5
Formulation	1	3	3	2
Conceptualization and formulation	7	10	5	8

One of the characteristics across the four types of planning conditions was that

fewest respondents centered mainly on the formulation stage, except for those under WTP condition. Another characteristic across the four planning conditions was that most respondents focused on both the conceptualization stage and the formulation stage, with the exception of those under PTPWTP condition.

In addition, more respondents under WTP and PTPWTP conditions focused on formulating the speech in comparison with those under PTP and NP conditions. It was probably because they had unlimited time to conceptualize and formulate their speech. They had less pressure than those who were under PTP and NP conditions. Thus, they could pause and think about what to tell and how to tell it, which could explain the reason why there were no positive planning effects on their speech fluency.

As for the most difficult aspect in terms of speech accuracy, complexity and fluency, it varied from planning condition to planning condition while speaking. To the PTP respondents, fluency was regarded as the biggest challenge. To respondents under the rest three planning conditions, accuracy was thought of as the hardest. The most difficult aspect to the participants under four conditions is demonstrated in Table 14.

**Table 14**  
*The most difficult aspect to participants under four planning conditions*

Planning condition	PTP	WTP	PTPWTP	NP
Aspect				
Accuracy	5	10	6	6
Complexity	3	2	4	5
Fluency	7	3	5	4

Finally, in terms of self-speech monitoring, it was concluded that of the 60 respondents across the four types of planning conditions, 55 of them actually monitored their speech before, and/or after speaking. Furthermore, more monitoring occurred before speaking than after speaking. In addition, more monitoring took place under

three planning conditions than under no planning condition. Finally, few respondents never monitored their speech: one was from WTP condition and four were from NP condition. Self-speech monitoring across the four planning conditions is summarized in Table 15.

**Table 15**  
*Self-speech monitoring across the four planning conditions*

Planning condition Self-speech monitoring	PTP	WTP	PTPWTP	NP	Total
Before speaking	8	11	7	7	33
After speaking	3	1	3	3	10
Both	4	2	5	1	12
Neither	0	1	0	4	5

The above analysis could further our understanding of the quantitative results discussed in previous chapter that why learners under planning conditions achieved higher speech accuracy and complexity than those who were under NP condition.

The compiled results, concerning how learners approached the task or what learners did while they were performing the task were somewhat different from what was analyzed in Yuan and Ellis (2003).

Yuan and Ellis (2003) differentiated PTP and WTP on the basis of the first two stages of Levelt's (1989) Model of Speech Production. They presented that PTP was directed primarily at conceptualization: the first stage of Levelt's (1989) speech production model. While performing the task, pre-task planners formulated their speech as well. As they could not remember what they had pre-planned so PTP did not facilitate formulation greatly, and this led to enhanced complexity and fluency rather than accuracy. WTP participants conceptualized their speech too. They carefully attended to the second stage---formulation. That was the reason why WTP could result in both

enhanced complexity and accuracy.

Their research findings supported their above arguments. In terms of speaking complexity, WTP participants could achieve the same or almost the same level in syntactical variety and complexity as PTP participants. PTP participants significantly outperformed those under WTP condition in terms of lexical variety. In terms of accuracy, WTP participants produced significantly more accurate speech than their counterparts in NP condition. They also generated much more accurate speech than their counterparts under PTP condition, even though there was no significant difference between these two planning conditions.

Nonetheless, in this study, the data elicited from PTP respondents' post-task questionnaire revealed that during PTP, seven out of the 15 respondents mainly conceptualized the content and organization of the story. One in total 15 respondents chiefly planned on the usage of language, i.e., to formulate their speech. The rest were actually doing both story conceptualization and language formulation. The same situation took place during their speaking process. These were somewhat different from the argument in Yuan and Ellis (2003).

The data elicited from WTP respondents' post-task questionnaire showed diverse results from those of Yuan and Ellis (2003), as well. While speaking, two out of the 15 respondents under WTP condition reported that they focused mainly on conceptualization stage. Three out of the 15 respondents concentrated chiefly upon formulation stage. A majority of them (ten) actually focused on both the conceptualization stage and the formulation stage.

The difference may be explained by the purpose of using Levelt's (1989) model of

speech production. They used the theory to rationalize learners' story planning process. While the present study investigated learners' process of task approach to see if they experienced what Levelt (1989) stated and if their planning process related to what the model presented. In the current study learners' planning process was analyzed based on the data elicited from participants' responses (practically). The results obtained in the present study somewhat differ from those of Yuan and Ellis (2003), but they actually echo Levelt's (1989) Model of Speech Production and strengthen this speech production model as well.

## **6.6 Chapter review**

This chapter discussed the data of post-task questionnaire. Data from questionnaires under different planning conditions were coded and analyzed separately first, and then compared and compiled across the four planning conditions. The data analyzed in this chapter deepened the understanding of participants' process of task approach as well as the planning effects discussed in previous chapter. The following chapter will summarize the research results, answer the research questions and conclude the study by recommendations for the future research.

## **CHAPTER 7 CONCLUSION**

### **7.0 Chapter overview**

The previous chapter discussed the process of how learners approached the task. This chapter concludes the findings of the present study to answer the research questions stated in Chapter 1. The data of independent and dependent variables gained from the previous chapters will be summarized to answer the first three research questions. The data elicited from post-task questionnaire will be summarized to answer the fourth research question. This chapter ends with recommendations for further researches and the conclusion of the study.

### **7.1 Planning effects**

#### **7.1.1 The effects of different types of planning on accuracy of L2 learners' oral production**

In order to answer the first question “What effects do the different types of planning have on the accuracy of L2 learners' oral production in a narrative task”, accuracy was operationalized as the percentage of error-free clauses and errors per 100 words adopted from Ellis and Barkhuizen (2005). Higher proportion of error-free clauses indicates more accurate speech and lower number of errors per 100 words exemplifies more accurate speech.

NP participants yielded the lowest percentage of error-free clauses across the four types of planning. They also produced the largest number of errors per 100 words. Thus, these participants achieved the lowest speech accuracy among the four types of planning. This may be due to the immediacy of the task and the lack of time to conceptualize and formulate the speech. The low speech accuracy may also be due to the extent to which



they monitored their speech. According to Levelt (1989), self-speech monitoring could enhance speakers' language output. In comparison with those under WTP, PTP and PTPWTP conditions, fewer respondents under NP condition monitored their speech.

WTP helped participants generate slightly higher percentage of error-free clauses than NP. It also aided them in making fewer errors per 100 words than NP. The participants had adequate time to formulate their speech and to access the rule-based system while speaking. Moreover, more respondents under WTP condition monitored their speech than those from NP condition before and/or after speaking. However, the number of respondents who monitored their speech under WTP planning condition was smaller than those under PTP and PTPWTP conditions. This might be one of the reasons why the WTP speech was less accurate than that of PTP and PTPWTP.

PTP enabled participants to produce much more accurate speech than WTP and NP. It assisted participants to produce more error-free clauses and reduce errors made per 100 words. These participants had 10 minutes to prepare, conceptualize their story and formulate their speech in advance. They were given more time to access the rule-based system. Additionally, more respondents monitored their speech before and/or after speaking than those under WTP and NP conditions through which, as Levelt (1989) stated, speakers can detect the problems and make proper amendments accordingly. Thus, they can improve their speaking performance.

PTPWTP seemed to have aided participants in generating the highest percentage of error-free clauses across the four planning conditions. The percentage was significantly higher than that of NP. The 10 minutes planning time prior to the task and the unlimited time to complete the task helped them in making the fewest errors per 100 words as

well. Moreover, more respondents under this planning condition monitored their speech than those from PTP condition, which, according to Levelt (1989), could at least from one aspect, explain why these participants achieved highest speech accuracy.

On the basis of the findings, it can be summarized that planning had positive effects on L2 learners' speech accuracy in terms of percentage of error-free clauses and errors per 100 words, even though the three types of planning had no significant effects on enhancing learners' speech accuracy, except for the PTPWTP condition in terms of percentage of error-free clauses.

### **7.1.2 The effects of different types of planning on complexity of L2 learners' oral production**

To answer the second research question "What effects do the different types of planning have on the complexity of L2 learners' oral production in a narrative task", complexity was measured by the ratio of indefinite to definite articles and the amount of subordination. Higher ratio of indefinite to definite articles or amount of subordination indicates more advanced grammatical feature and more complex speech (Ellis & Barkhuizen, 2005).

The data for speech complexity in terms of the ratio of indefinite to definite articles and the amount of subordination demonstrated that NP participants gained the lowest rate in both cases, which means that they achieved the lowest complexity in speech. The low complexity of NP participants might be explained by the limited time for task completion and the immediacy of the task may have hindered them from accessing the rule-based system to form elaborate language. Under those conditions, the participants had little opportunity to plan to their heart content, even though most NP participants

focused chiefly on the content or the organization of the story and the language as they recalled in the post-task questionnaire.

WTP demonstrated slightly higher speech complexity in both measurements. The participants were not given time limit to complete their story, thus they had adequate time to think about the story line and the language. According to their responses in the post-task questionnaire, some of them did think of the construct of sentences which could be specifically reflected from the amount of subordination. Nevertheless, as discussed above about the NP participants, the immediacy of the task might have negative influence on their thinking of the usage of complex sentences.

PTP greatly boosted participants' speech complexity compared to WTP. These participants achieved much higher percentage in both the rate of indefinite to definite articles and the amount of subordination. They were given 10 minutes prior to the task during which they could access the rule-based system and plan the content of the story and the lexis that could be used in appropriate sentences.

PTPWTP showed a slightly higher speech complexity than PTP. Participants under this condition were not given the time limit to complete the task while speaking. With similar time to plan in advance as PTP condition, participants under this planning condition had unlimited time to focus on their speech while speaking, which might explain the reason why PTPWTP participants achieved greater complexity than PTP participants. Additionally, as explained by Yuan and Ellis (2003), when learners are given 10 minutes to plan in advance, they have time to conceptualize. Then they develop propositional plans. To encode the propositional plans, they will access to the grammatical forms which can result in greater complexity. This may explain why PTP

and PTPWTP participants could achieve greater complexity than those under WTP and NP conditions.

To conclude, planning could enhance participants' speech complexity in terms of the ratio of indefinite to definite articles and the amount of subordination, although the effects of planning were not statistically significant.

### **7.1.3 The effects of different types of planning on fluency of L2 learners' oral production**

For the purpose of answering the third question, "What effects do the different types of planning have on the fluency of L2 learners' oral production in a narrative task", learners' speech fluency was measured by the number of filled and unfilled pauses and the total number of repetitions. According to Ellis and Barkhuizen (2005), the larger the number of pauses or repetitions a learner makes, the less fluent his speech is.

In the light of filled and unfilled pauses, WTP affected participants' speech fluency negatively. WTP participants made the largest number of pauses, even larger than NP participants. This might be caused by unlimited time to complete the task. The time element can also explain the results of PTPWTP. Under PTPWTP condition, participants made much fewer pauses than those from WTP condition but close number of pauses to NP participants. 10-minute preparing time prior to the task resulted in much fewer pauses and more fluent speech than WTP. But the unlimited time of PTPWTP to complete the task did not effectively assist participants to make fewer pauses or more fluent speech than NP and PTP conditions. The participants' speech was slightly more fluent than that of NP participants, but much less fluent than that of PTP participants.

In the case of repetitions, NP participants made the most repetitions and WTP

participants made fewer repetitions than NP participants, which shows that WTP was beneficial in assisting participants to speak fluently. The immediacy of the task under both conditions caused immediate conceptualization of the story and the haste formulation of the language, which may lead to more repetitions or low speech fluency than PTP and PTPWTP conditions. While PTP and PTPWTP conditions provided participants with the opportunity to plan in advance. Therefore, participants under PTP and PTPWTP conditions could produce significantly lower number of repetitions than NP participants. In other words, PTP participants' speech was significantly more fluent than that of NP participants. However, between PTP and PTPWTP conditions, PTP participants achieved higher fluency than PTPWTP participants. This was probably because PTP had to complete the task within a time limit.

To conclude, WTP was detrimental to participants' speech fluency in terms of the number of filled and unfilled pauses. PTPWTP could not contribute to participants' speech fluency, either. PTP, however, could significantly improve participants' speech fluency in terms of filled and unfilled pauses. In the light of repetitions, WTP could greatly boost participants' speech fluency. PTP and PTPWTP could significantly facilitate participants' speech fluency. Nonetheless, there was no much difference in the planning effects on speech fluency between PTP and PTPWTP conditions.

#### **7.1.4 Trade-off effects**

There is common agreement that L2 learners, especially those with limited proficiency level, trade off attention to one aspect over the others. As stated earlier in the literature review Section 2.1.4, trade-off effects have been observed by previous researchers such as Skehan and Foster (1997), Wendel (1997) and Yuan and Ellis (2003),

but there are some controversies on the aspects that learners actually trade off the planning effects.

Skehan and Foster (1997) observed the trade-off effects between complexity and accuracy. Wendel (1997) detected the trade-off effects involved accuracy and fluency. Yuan and Ellis (2003) observed two types of trade-off effects in the aspects of L2 learners' speaking performance. The first trade-off effects involving accuracy and fluency echoed the findings of Wendel (1997). The other trade-off effects Yuan and Ellis (2003) reported was the one between grammatical accuracy and lexical variety.

In the present study, a trade-off effect between fluency and accuracy/complexity was observed. Based on the results discussed above, the primary competition for the attention resources involved fluency and accuracy/complexity in this study. PTP can significantly contribute to fluency. To a certain extent, it can benefit accuracy and complexity in comparison with NP, but there was no significant difference in its planning effects. PTP participants had the opportunity to plan in advance and this allowed them to attend to the propositional content and the explicit knowledge as well, which resulted in greater fluency in the real time performance. The trade-off effect observed in this study is in agreement with that of Wendel (1997) and the first trade-off effects of Yuan and Ellis (2003).

#### **7.1.5 Summary of planning effects**

The results of planning effects based on the three aspects of language production have been discussed by comparing three planning groups with the no planning group. The findings demonstrate that all the three planning groups can positively affect the accuracy, complexity and fluency of learners' speech, with the exception of WTP to

fluency in terms of the number of filled and unfilled pauses. Of the three planning groups, PTPWTP can significantly outperform the NP in accuracy in percentage of error-free clauses and fluency in repetitions. Furthermore, PTP group can significantly outperform NP group in fluency.

The results indicate that giving learners some time to plan either before or during task performance without any specific guidance or task instructions may not significantly contribute to learners' speech accuracy and/or complexity. Thus learners ought to master the explicit knowledge (the grammatical knowledge) which can assist them in formulating and monitor the speech and produce more accurate speech well. When given time and/or guidance to plan, they may be able to produce significantly more accurate and complex language.

Furthermore, it is also found that there is no significant difference in planning effects between PTPWTP and PTP on learners' speaking performance, which could be inferred that PTPWTP participants did not employ the adequate time given to allocate their attention to all aspects of language as Yuan and Ellis (2003, p. 24) proposed. In other words, although PTPWTP participants were given the chance to plan in advance like PTP participants and also given unlimited time to complete the task like WTP participants, they did not seem to benefit from these opportunities.

Thus, it could be suggested that to a certain extent the planning effects are limited. Increasing opportunities to plan may not necessarily contribute to better performance. An implication of this study on L2 classroom teaching and learning is that mastering the explicit knowledge of aspects of the language is probably a prerequisite for L2 learners. Then given opportunity and/or guidance to plan, they could enhance their speech

accuracy, complexity and fluency more efficiently.

It may also give some insights into the relationship between learners' performance in examination setting and in a non-examination setting (normal classroom performance). PTP condition, with a time limit or pressure to complete the task, is similar to learners' performance in examination setting. While PTPWTP condition, without any time limit or pressure for task completion, is similar to learners' non-examination (normal classroom) performance. Based on the above section, it may be inferred that students who fail the examinations may probably not perform well in classroom settings either, although there was less pressure, less anxiety, less serious atmosphere and more speaking time allotted. This may be because learners have no adequate explicit knowledge of a language.

Additionally, the previous studies reported that the generation of mixed results in planning effects of the three aspects was due to the different measurements, or learners' proficiency level, the types of tasks, and whether learners have the opportunity to plan while performing the task. This study suggests that giving learners different task instructions could influence the planning effects. An explanation for this is that owing to learners' limited attention capacity, especially those with limited L2 proficiency. They could not attend to all aspects of the language. They have to give priority of attention to one aspect over the others. Giving learners specific task instruction could be one way to channel learners' attention to a particular aspect and could result in significantly better performance in that certain area.

## **7.2 Learners' recollections about how they approached the task**

In order to answer the fourth research question, "What can they recall about how



they approached the task? Do their recollections about how they approached the task relate to the three stages of Levelt's (1989) Model of Speech Production? ". Post-task questionnaire was given to the randomly selected participants to elicit the data needed.

Participants under PTP and PTPWTP conditions had the opportunity to plan before they started narrating the story. During this period of time, under PTP conditions, seven of the respondents thought about the outline or the plot of the story. They conceptualized the story, which indicated that they were at the first stage of Levelt (1989) speech production model. One respondent concentrated primarily on the selection of lexis, the construction of sentences and some grammatical problems. They formulated the usage of language. Hence, he was at the second stage of Levelt's (1989) speech production model. The rest actually both conceptualized the story and formulated the language. They pondered both the linkage of the pictures, the content or outline or the organization of the story, the selection of vocabulary, the construct of sentences, and the grammar as well. The same situation happened in PTPWTP condition. The difference was that the number of respondents focused on the particular stage was different.

During the process of speaking, respondents from the four planning conditions were either at the first stage of Levelt's (1989) speech model or at the second stage, or at both stages. They either thought about the organization or the content of the story or the language. Many of them considered both aspects. Thus, during task approach, although learners focused on different aspects, they actually experienced the stages Levelt (1989) stated while performing the task. This is in agreement with Levelt (1989) Model of Speech Production.

Furthermore, Levelt (1989) stated that self-speech monitoring happens before and/or after a speech act, which can assist learners to improve their speaking performance. In this study, participants reported that they did monitor their speech, which supports Levelt's (1989) speech production model as well.

### **7.3 Suggestions for further research**

The selection of the participants in this study was chiefly on the basis of the overall MUET results. It was not based on the specific aspect of speaking scores. It is not known how they scored on different language skills, as the overall MUET score indicated only the overall English proficiency. If a future study used only speaking score as the criterion to select the participants, the results might be different from the current study.

Besides, the participants in the present study were law students who had an average proficiency (MUET Band 4) in English. Another study could be conducted among the participants of other majors and other English proficiency levels to see what results will be generated.

Moreover, this study used open-end post-task questionnaire to gather learners' recollections regarding their task approach procedure, through which learners' actual thought process might get lost. As post-task questionnaire may not fully reflect their ongoing thoughts about task approach process, future researches can be conducted to collect learners' thought process on task approach by think-aloud protocol or interview under full consideration and certain technical training.

In addition, the current study focused on narrative speaking. Replication of this study in other types of speaking, for instance, conversational speaking, will give other

insights into learners' speaking performance in terms of accuracy, complexity and fluency.

Furthermore, participants' race was not considered as a variable in the present study. There are mainly three races in Malaysia and they are Malay, Chinese and Indian. The participants of this study consisted of all the three races but how their speech differed in terms of accuracy, fluency and complexity was not investigated in this study. Other studies by Manan and Shamsudin (2012) compared Malay and Chinese students' spoken English. They found that Chinese students outperformed Malay students in terms of language productivity, vocabulary range and sophistication (p. 5). Hairuzila and Rohani (2006) conducted a study to explore Malaysian students' self-efficacy in spoken English. The findings demonstrated that Indian students had the highest self-efficacy level in spoken English, followed by Chinese and then Malay students (as cited in Manan & Shamsudin, 2012, p. 3). Therefore, future study can include race as a variable and compare the planning effects across races.

Apart from the above, the gender of the participants in this study was unbalanced. Of those who participated in the actual data collection, 29 were male students and 95 were female students. Future study may investigate the effects of planning on learners' speaking performance based on a balanced number of male and female participants. Alternatively, in a further study, the participants' gender, like race discussed above, can be considered as a variable to explore the planning effects.

Finally, to maximize the strength of the research findings, more than two measurements can be used in future studies to measure planning effects on learners' speaking performance in terms of accuracy, complexity and fluency.

#### **7.4 Chapter review**

The present study examined the effects of planning on L2 learners' speaking performance in terms of accuracy, complexity and fluency. The results demonstrated that planning could positively affect learners' speaking performance. However, planning did not simultaneously affect all the three aspects significantly due to learners' limited attention resources. During the actual task performance, they tended to give priority to one aspect of a language over the others and made improvement. In the current study, under PTP condition, learners significantly improved their speech fluency. Their speech accuracy and complexity were also improved but not significantly.

When comparing the current planning effects with those in Yuan and Ellis' (2003) study, it was found that giving learners different task instructions may/could influence the planning effects. This could be explained by what Skehan (1998) stated, "learners' attention can be channeled to a specific aspect". Therefore, when performing the task, giving learners specific instructions could possibly result in better performance.

This study also investigated learners' planning process from the perspective of Levelt's (1989) speech production model. The investigation via post-task questionnaire revealed that learners experienced the stages of conceptualization, formulation, or both, in their approach to the task. In terms of self-speech monitoring, they monitored their speech before speaking, and/or after speaking. These findings echo Levelt's (1989) Model of Speech Production. In addition, these findings demonstrate that Levelt's (1989) speech production model provides rich insights into L2 learners' speaking process and deepens the understanding of the effects of different types of planning on L2 learners' speaking performance as well.

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## APPENDIX A

### A CONSENT FORM

I am a postgraduate student at University of Malaya in Malaysia, studying Master of English as A Second Language at the Faculty of Languages and Linguistics. I am writing to ask if you would be willing to participate in my research.

The research is to explore effects of planning on second language (L2) learners' speaking performance. The task for you is to narrate a story based on a set of pictures. It will take you 10 to 45 minutes.

The data I collect from you will be treated confidentially. To insure the anonymity, your name will not be utilized when I report this research.

If you want to withdraw at any time during the data collecting process, it is totally acceptable.

Finally, if you have any questions regarding the study, please email me at: [guozhonglan22@siswamail.um.edu.my](mailto:guozhonglan22@siswamail.um.edu.my) or you can call me by phone: 010-506-1235.

Many thanks to you for your warmhearted participation in my research!

Guo Zhonglan

Faculty of Languages and Linguistics

University of Malaya

I consent to participate in this study and agree that the data will be used in Guo Zhonglan's succeeding research.

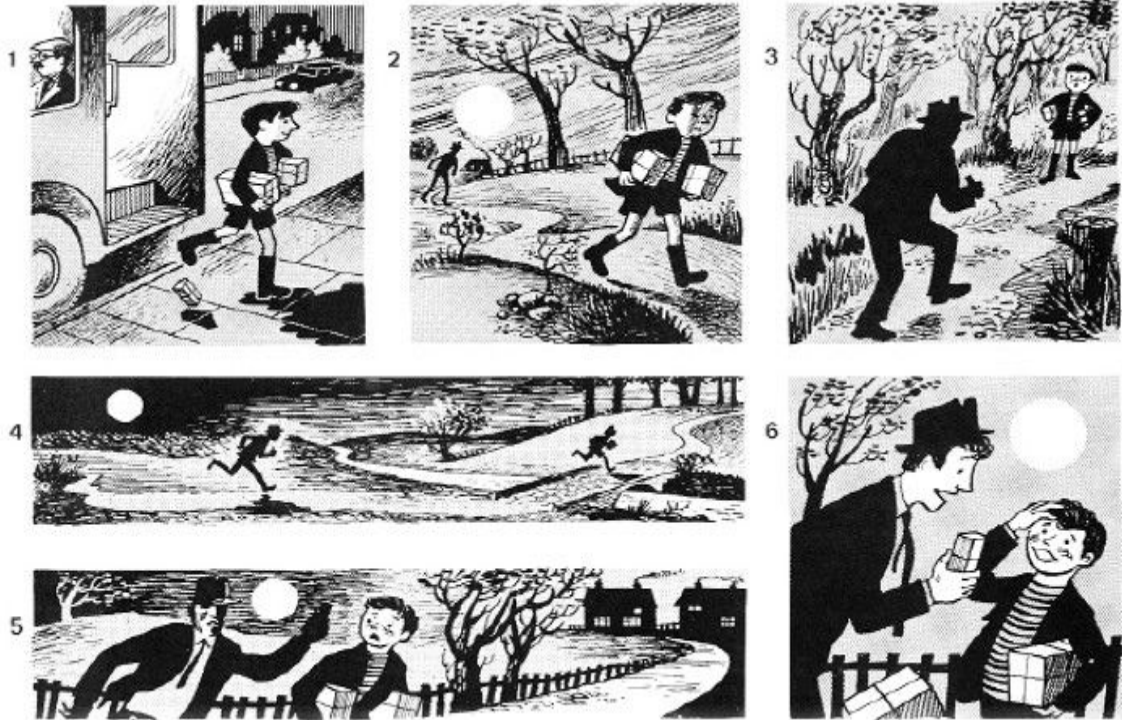
Name: \_\_\_\_\_

Date: \_\_\_\_\_

## APPENDIX B

### A SET OF PICTURES

Pictures taken from Piri, Barati & Ketabi (2012) who adopted them from Heaton (1975)



Instructions given to the participants in each group:

#### Pre-task planning

The set of six related pictures you have seen tell us a story. Please narrate a story in English based on the pictures for those who have never seen the pictures and are interested in knowing as much as details as possible. Before you begin speaking, you will have 10 minutes to prepare for your story. You will be given a sheet of paper and pen to help you planning. You can write down the notes. When you begin narrating the story, your notes will be taken away and you have to complete the story in 4 minutes.

You are required to tell at least 4 sentences on each picture. Please begin the story with “This evening, John...”

### **Within task planning**

The set of six related pictures you have seen tell us a story. Please narrate a story in English based on the pictures for those who have never seen the pictures and are interested in knowing as much as details as possible. You have to start telling the story 30 seconds after you receive the task, but you can take as much time as you need to formulate your story. You are required to tell at least 4 sentences on each picture. Please begin the story with “This evening, John...”

### **Pre-task planning plus within task planning**

The set of six related pictures you have seen tell us a story. Please narrate a story in English based on the pictures for those who have never seen the pictures and are interested in knowing as much as details as possible. Before you begin speaking, you will have 10 minutes to prepare for your story. You will be given a sheet of paper and pen to help you planning. You can write down the notes. When you begin narrating the story, your notes will be taken away. You can take as much time as you need to formulate your story. You are required to tell at least 4 sentences on each picture. Please begin the story with “This evening, John...”

### **No planning**

The set of six related pictures you have seen tell us a story. Please narrate a story in

English based on the pictures for those who have never seen the pictures and are interested in knowing as much as details as possible. You have to start telling the story 30 seconds after you receive the task and you have to complete the story in 4 minutes. You are required to tell at least 4 sentences on each picture. Please begin the story with “This evening, John...”

## APPENDIX C

### QUESTIONNAIRE FOR BACKGROUND INFORMATION

Name: \_\_\_\_\_

Nationality: \_\_\_\_\_

Gender: \_\_\_\_\_ Age: \_\_\_\_\_

Birth place: \_\_\_\_\_ Province/State \_\_\_\_\_ Country \_\_\_\_\_

Email: \_\_\_\_\_

Mobile: \_\_\_\_\_

Native language: \_\_\_\_\_

Major: \_\_\_\_\_

MUET Overall Band: \_\_\_\_\_ Speaking Band: \_\_\_\_\_

1. Did you take Sijil Tinggi Pelajaran Malaysia (STPM) or Matriculation course before entering UM? \_\_\_\_ Which one? \_\_\_\_\_
2. Do you have working experience? \_\_\_\_\_
3. How long have you learned English? For \_\_\_\_\_ years.
4. Have you ever been studied or lived in any English-speaking country or abroad before? \_\_\_\_\_. If yes → which country \_\_\_\_\_ How long have you stayed there? \_\_\_\_\_.
5. Have you ever traveled to any English-speaking country or abroad before? \_\_\_\_\_.  
If yes → which country \_\_\_\_\_ How long have you stayed there \_\_\_\_\_
6. Do you speak English regularly outside classroom? \_\_\_\_\_  
If yes → how often \_\_\_\_\_
7. Is anyone in your immediate family a native speaker of English? \_\_\_\_\_

If yes→ What is the relationship? \_\_\_\_\_ How often do you speak to the person in English? \_\_\_\_\_

8. Do you regularly participate in activities involving speaking English (speech, debate, presentation, etc)? \_\_\_\_\_

If yes→ What activities \_\_\_\_\_ How often \_\_\_\_\_

9. How many hours of speaking lessons do you have to attend every week?  
\_\_\_\_\_ hours.



## **APPENDIX D POST-TASK QUESTIONNAIRE**

### **POST-TASK QUESTIONNAIRE FOR PRE-TASK PLANNERS**

**Please answer the following questions based on your experience in the process of preparing and telling the story.**

#### **1 Please recall how you approached the task.**

Your recollections can be based on such phases as your first thought when you received the task, what did you plan during the 10 minutes, the difficulties you met while planning, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

#### **2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.**

Please tick “ √ ” the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

Did you monitor your speech after speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

## **POST-TASK QUESTIONNAIRE FOR WITHIN TASK PLANNERS**

**Please answer the following questions based on your experience in the process of preparing and telling the story.**

### **1 Please recall how you approached the task.**

Your recollections can be based on such phases as your first thought when you received the task, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

### **2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.**

Please tick “ √ ” the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

Did you monitor your speech after speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

**POST-TASK QUESTIONNAIRE FOR  
PRE-TASK PLUS WITHIN TASK PLANNERS**

**Please answer the following questions based on your experience in the process of preparing and telling the story.**

**1 Please recall how you approached the task.**

Your recollections can be based on such phases as your first thought when you received the task, what did you plan during the 10 minutes, the difficulties you met while planning, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

**2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.**

Please tick “ √ ” the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

Did you monitor your speech after speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

## **POST-TASK QUESTIONNAIRE FOR NO TIME PLANNERS**

**Please answer the following questions based on your experience in the process of preparing and telling the story.**

### **1 Please recall how you approached the task.**

Your recollections can be based on such phases as your first thought when you received the task, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

**2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.**

Please tick “ √ ” the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

Did you monitor your speech after speaking?      Yes \_\_\_\_\_ No \_\_\_\_\_

## **APPENDIX E**

### **A SAMPLE OF TRANSCRIPTION OF A PARTICIPANT'S STORY AND HOW TO ANALYZE SPEECH ACCURACY, COMPLEXITY AND FLUENCY**

This evening John was returning to his house by the bus. He came down from the bus by carry out by carrying ... Few parcel in his hand. However, John didn't realize that one of his parcel was actually has drop to the floor. John was then keep walking to his to the direction of his house. On the way back to his house, John use the path that he walks everyday. It is the path that he used to walk ... by his own whenever he um return from from the other place. Suddenly John feel like there was sb follow there was sb who was following him from the back. However, John chose to keep walking without turning around because he was rushing of time and his mother was waiting him in the house ... After few minutes John still feel that ... person behind him was still um following him. Then John turn around to figure out ... to figure out who was actually following him. When he turned around, he saw a man who wore a black coat. Since the light is not that enough, John cannot recognize that man. Without hesitating, John kept running to his house. It is because he he is scared that that man was going to hurt him. At the same time the man who follow him at the back ... keep kept chasing John while John was running. ... In this situation has ... continue for 10 minutes. ... After that John felt tired and he started to slow down his pace ... the man succeed to catch John in back ... John was scared and turn around and the man the man turn around and he saw the man he saw who is that man ... Out ... Then John John John saw that man's face very clear and he was relieved because that man was his neighbour Mr. David. ... He saw David was relieved too because he ac actually want wanted to return the parce parcel to John. John ...John explain to him it it was a misunderstanding. As he thought Mr. David is a

bad guy who was going to hurt him... Mr. David then hand hand him the parcel to John.  
John accept the parcel and then say thank you to Mr. David. The end. (Total words = 391; total speak time = 3:42).

### **Measuring learner's speech accuracy, complexity and fluency:**

#### **Accuracy**

Errors per hundred words: the number of errors (31) divided by the total number of words (391) produced divided by 100

$$32/(391/100) = .82$$

Percentage of error-free clauses: the number of error-free clauses (3) divided by the total number of AS-units (25) multiplied by 100%

$$(3/25)*100\% = 12\%$$

Example of error-free clause: When he turned around, he saw a man who wore a black coat.

Example of AS-unit: This even John was returning to his house by the bus.

#### **Complexity**

The ratio of indefinite to definite articles: the number of indefinite articles (4) divided by the number of definite articles (15)

$$4/15 = .27$$

The amount of subordination: the total number of separate clauses (53) divided by the total number of AS-units (25)

$$53/25 = 2.12$$

#### **Fluency**

The number of filled and unfilled pauses: the total number of filled (um) and unfilled (...) pauses (17) for each speaker

The total number of repetitions: words, phrases or clauses that are repeated with some modification (18)

## APPENDIX F

### SAMPLES OF POST-TASK QUESTIONNAIRE RESPONSES FROM RESPONDERS UNDER EACH PLANNING CONDITIO POST-TASK QUESTIONNAIRE FOR PRE-TASK PLANNERS

Please answer the following questions based on your experience in the process of preparing and telling the story.

#### 1 Please recall how you approached the task.

Your recollections can be based on such phases as your first thought when you received the task, what did you plan during the 10 minutes, the difficulties you met while planning, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

When I first looked at the pictures, I was thinking that I has been a long time do not telling a story in English. During the 10 mins, I looked through all the pictures, and tried to make up a flow for the story. Then I wrote down the story line I made up in my head and tried to correctly but hard to arrange the words and sentences. When telling the story, firstly I was still thinking the content of the story and the good words too. During the process, I was most worried about grammar mistakes and the data collecting person will laugh at me.

#### 2 According to Levelt's (1989) model of speech production, learners' learned

system serves as a monitor to check what they are going to produce (before

speaking) or what has been produced (after speaking). Learners scan their

utterances for errors and/or use the learned system to make corrections and to

improve their speech.

Please tick "✓" the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking? Yes ☒ No ☐

Did you monitor your speech after speaking? Yes ☒ No ☐

## POST-TASK QUESTIONNAIRE FOR WITHIN TASK PLANNERS

Please answer the following questions based on your experience in the process of preparing and telling the story.

### 1 Please recall how you approached the task.

Your recollections can be based on such phases as your first thought when you received the task, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

When I first looked at the pictures, I was trying to link the pictures to see what story the pictures trying to convey. While telling story, I was thinking about how to link the pictures and also how to construct proper sentences. It is so difficult to make clauses if I want to make the story sound amazing and advanced.

### 2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.

Please tick "✓" the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking? Yes \_\_\_\_\_ No \_\_\_\_\_

Did you monitor your speech after speaking? Yes ☒ No \_\_\_\_\_



## POST-TASK QUESTIONNAIRE FOR

### PRE-TASK PLUS WITHIN TASK PLANNERS

Please answer the following questions based on your experience in the process of preparing and telling the story.

#### 1 Please recall how you approached the task.

Your recollections can be based on such phases as your first thought when you received the task, what did you plan during the 10 minutes, the difficulties you met while planning, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

when I received this task, I was thinking of the linkage of these pictures, trying to figure out what information these pictures want to express. During the ten minutes preparing, first, I tried to understand information each picture given. Then I tried to form connection between those pictures. Once I managed to relate these pictures, I tried to form sentences to describe those pictures. While planning, creating correct and good sentences was the most difficult to me. when I was telling the story, I can tell the story according to the outline that I have planned. However, my mind is hang on constructing sentences with proper grammar/vocabulary in order to tell the story nicely, I was having hard time thinking of complex sentences to describe the story.

2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.

Please tick "✓" the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking? Yes ☒ No ☐

Did you monitor your speech after speaking? Yes ☐ No ☐

## POST-TASK QUESTIONNAIRE FOR NO TIME PLANNERS

Please answer the following questions based on your experience in the process of preparing and telling the story.

### 1 Please recall how you approached the task.

Your recollections can be based on such phases as your first thought when you received the task, your main thoughts while speaking, the difficulties you faced while speaking in terms of speaking accuracy, complexity and fluency.

I am confused when seeing the pictures because the story line was not clear. Then I looked at pictures again and more carefully. Finally, with much difficulty, I was able to tell the story. When telling the story, first, I tried to figure the outline of the story and then to create more good sentences to make it look interesting. Then I tried to use more advanced words to get a better storyline. I find it hard to tell the story smoothly and fast without stopping. Because I must stop to think about the words, sentences and to look at the pictures.

### 2 According to Levelt's (1989) model of speech production, learners' learned system serves as a monitor to check what they are going to produce (before speaking) or what has been produced (after speaking). Learners scan their utterances for errors and/or use the learned system to make corrections and to improve their speech.

Please tick "✓" the condition(s) that apply to you. From the time you started the task till you finished it:

Did you monitor your speech before speaking? Yes ☒ No ☐

Did you monitor your speech after speaking? Yes ☒ No ☐